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University of Montana Report of the President 1906-1907

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UNIVERSITY BULLETIN

NO. 48

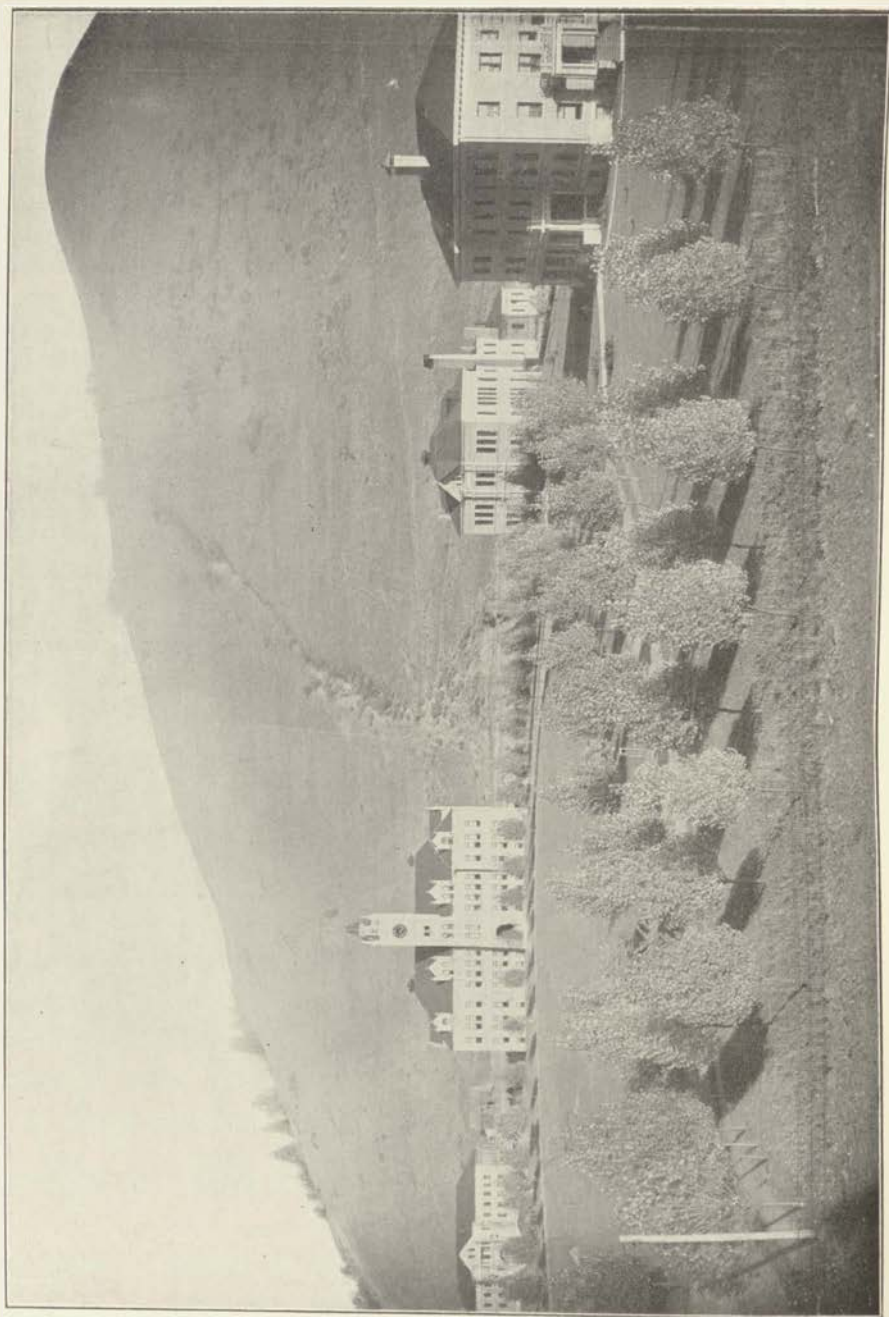
DECEMBER, 1907

PRESIDENT'S REPORT
OF
THE UNIVERSITY
OF MONTANA



1906-1907

ENTERED AUGUST 24, 1901, AT MISSOULA, MONT., AS SECOND
CLASS MATTER, UNDER ACT OF CONGRESS JULY 16, 1901



UNIVERSITY OF MONTANA, 1907

UNIVERSITY OF MONTANA

ANNUAL REPORT

OF THE

PRESIDENT OF THE UNIVERSITY

TO THE

STATE BOARD OF EDUCATION

1906-1907

Press of
THE DAILY MISSOULIAN
MISSOULA, MONTANA





MONTANA STATE BOARD OF EDUCATION

EX-OFFICIO

GOVERNOR JOSEPH K. TOOLE, President.

ALBERT J. GALEN, Attorney General.

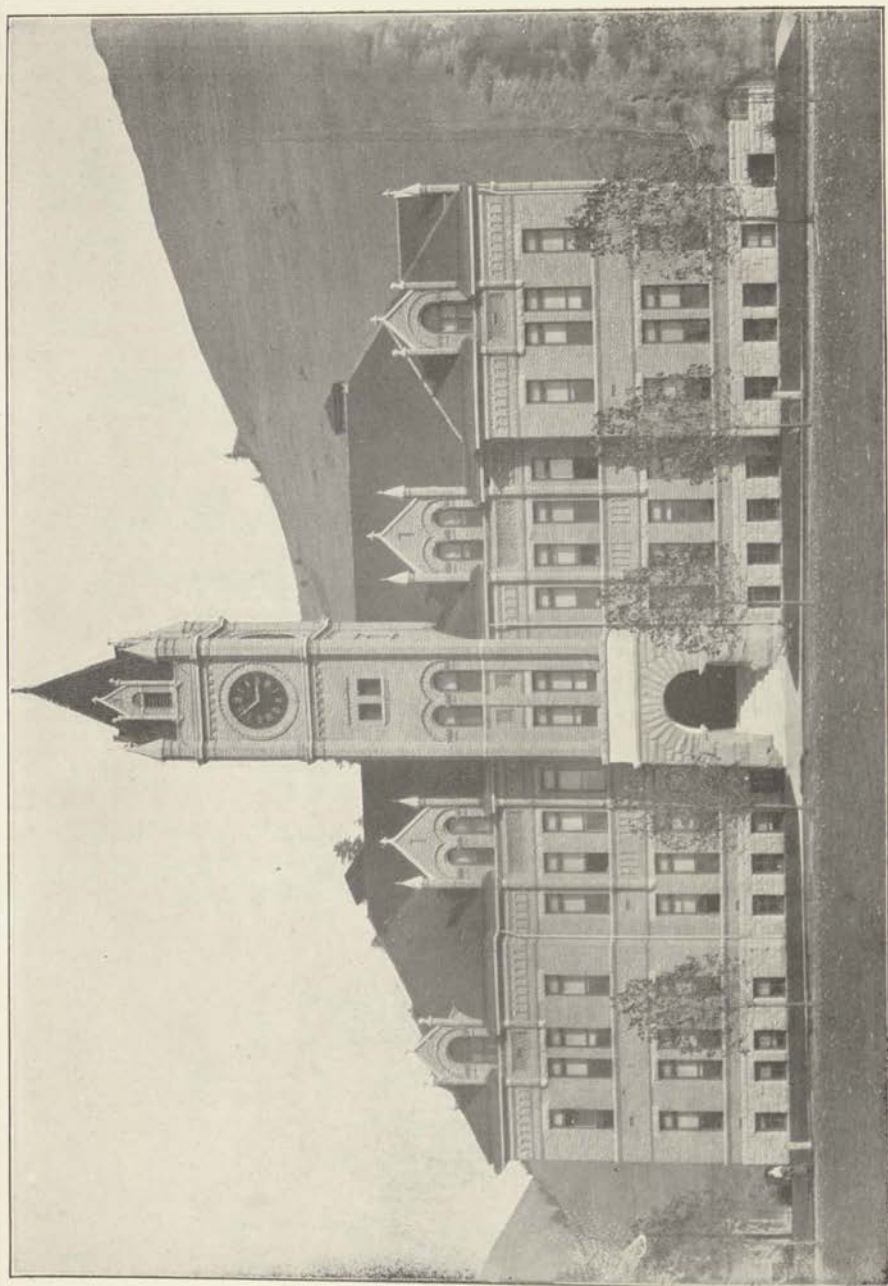
W. E. HARMON, Supt. Pub. Instruction, Secretary.

APPOINTED

O. P. CHISHOLM, Bozeman.....	Term Expires February 1, 1908
S. D. LARGENT, Great Falls	" " " 1, 1908
CHAS. N. KESSLER, Helena	" " " 1, 1909
G. T. PAUL, Dillon	" " " 1, 1909
JOHN M. EVANS, Missoula	" " " 1, 1910
CHARLES R. LEONARD, Butte	" " " 1, 1910
O. W. McCONNELL, Helena	" " " 1, 1911
E. O. BUSENBERG, Lewistown	" " " 1, 1911
B. T. HATHAWAY	Clerk of the Board

EXECUTIVE COMMITTEE OF THE STATE UNIVERSITY

J. H. T. Ryman, President	Missoula
T. C. MARSHALL, Secretary	Missoula
HIRAM KNOWLES	Missoula



UNIVERSITY HALL

PRESIDENT'S REPORT

University of Montana,

Missoula, Mont., Nov. 30, 1907.

To the Montana State Board of Education, Helena, Montana.

Gentlemen:—In accordance with the provisions of the Statutes of Montana, as found in Section (5) Five of an "Act to Establish, Locate, Maintain and Govern the University of Montana," the following report for the year ending November 30, 1907, is respectfully submitted.

GENERAL INFORMATION

HISTORICAL SKETCH

The University of Montana had its origin in a grant of seventy-two sections of land made by the federal government to the state of Montana for University purposes. It was provided that the land should be used to form a principal that could never be diminished, and the income from which would form a fund to be applied to the maintenance of the University.

The land selected for the University was amongst the best in the state, and as a result it almost at once began to bring in a revenue. This revenue arises from three sources—leases, licenses to cut timber and the interest arising from the investment of money derived from the sale of lands. It was in this way that the money was accumulated that was used for opening the University in 1895.

The legislative act providing for the organization of the University bears date of February 17, 1893. In accordance with the provisions of the state constitution this act placed the University under the control of the State Board of Education. This act also gave general directions concerning the organization of the different departments of the University, the courses of instruction, duties of the president, fees, etc.

At the December meeting, 1894, the University committee of the State Board of Education reported in favor of opening the University in September, 1895. In order to facilitate the opening of the University the citizens of Missoula donated the use of their elegant and commodious South Side public school building to the state until permanent buildings could be constructed. About \$3,500 was spent in improving this building and in putting it in proper order for the use of the state. The amount was raised by special tax, levied for this purpose.

A local executive committee was appointed to assist the board in their work. This committee consisted of J. H. T. Ryman, Judge Hiram Knowles and Col. T. C. Marshall, all of Missoula. This committee has served until the present time without any change in its membership.

The University was formally opened with appropriate ceremonies on Wednesday, September 11, 1895.

Arbor Day, 1896, is a memorable date in the history of the University. On this day the beautiful grounds donated to the state by Mr. E. L. Bonner and Mr. F. G. Higgins, were dedicated to University purposes. The grounds, comprising forty acres, had already been fenced by the Missoula Board of Trade. Five hundred shade trees were planted. These exercises were participated in by a large concourse of school children, civic societies and citizens.

The Legislative Assembly of 1897 gave the University authority to issue bonds to the amount of \$100,000, bearing not more than 6 per cent interest, due in thirty years and payable in twenty. These bonds were secured by the income from the University land.

The bonds were sold at a premium, a building commission appointed, and the work of constructing the buildings vigorously pushed to completion.

An ample sewerage system was planned and completed, and an abundant water supply secured.

Two buildings were then constructed, one known as University Hall, containing the library, museum, biological lecture room and laboratory, president's office, assembly room, and class rooms in literature, philosophy, mathematics, etc.; the other, known as Science Hall, contains the necessary rooms for work in chemistry, physics and mechanical engineering. Science Hall also contains the steam plant for heating the buildings and furnishing power for the mechanical laboratory.

The interiors were planned with especial reference to the present needs of the University as indicated by the work already in progress, as well as to anticipate future demands. These buildings were completed and formally presented to the State Board of Education, February 18, 1899.

The Legislative Assembly of 1901 authorized the issuing of \$70,000 additional in 5 per cent bonds, due in thirty years and payable in twenty. It was also provided that \$40,000 of these bonds should be issued at once and the remainder at the discretion of the State Board of Education. With the proceeds of this bond issue the Woman's Hall and a gymnasium were erected and equipped.

Before the \$30,000 issue was sold the Attorney General of Montana gave an opinion, which was sustained by the Supreme Court of Montana and also by the Supreme Court of the United States, that the income from the lands could not be applied to the interest on bonds, but must be devoted to the maintenance of the University.

In accordance with this decision the General Assembly of 1907 passed an act looking towards the assuming of this bonded debt by the state, and the payment of the interest due. An act was also passed granting the University an appropriation of \$50,000 for a library building, and \$10,000 for the enlargement of the heating plant and other improvements.

THE UNIVERSITY CAMPUS

The University Campus is forty acres in extent, and lies near the southeastern limit of the city of Missoula, at the base of the hills which enclose the eastern end of the valley. To the north lies the Missoula river; westward stretches a wide plain, whose western and southern horizons are bounded by the Bitter Root Mountains. A substantial beginning has been made toward the improvement of the campus. A double row of trees was planted along the north, west and south sides ten years ago. Near the center an oval lawn of about three acres in extent is marked out by a broad graveled driveway; around this is a sidewalk, with a space between the walk and the driveway for grass, flowers and shrubbery. The entrance to this driveway is at the western side, from University avenue.

A double row of trees is planted around the drive, one on the lawn around the inner edge of the drive, the other on the outer side of the walk. The trees and the lawns started around the buildings and within the oval have made an excellent growth and already present a beautiful appearance.

BUILDINGS

University Hall, the largest building, stands on the east side of the oval, directly opposite the entrance to the driveway, facing the west. A little to the south stands Science Hall, which faces toward the northwest, and like University Hall, fronts upon the oval.

University Hall is 140 by 65 feet in its ground dimensions, and its central tower rises to a height of one hundred and twelve feet. This building has four floors, including the basement, which is so largely above the ground as to be well lighted and fit for any sort of use. The basement walls are of granite; above rise double brick walls of the most substantial character; the inner partition walls are also of brick.

Throughout the building, from basement upwards, is a uniform handsome finish of dark tamarack and white pine wainscoting, in alternate strips; above this are white plaster walls.

The whole building contains thirty-one rooms, without including six small rooms in the rear of the Assembly Hall—three on the second and three on the third floor. These rooms furnish a passageway from one end of the building to the other, without going through the Assembly Hall, and may also serve as cloak rooms; those on the second floor give access from the rear to the platform of Assembly Hall.

The most important of these rooms in University Hall are the Assembly Room, Library, Museum, Literary Society Hall, Offices, Biological Laboratory and seven lecture rooms of uniform size, for the departments of History, Drawing, Biology, Mathematics, Literature, Modern Languages and Ancient Languages.

Science Hall contains on the first floor eight rooms, a lecture room and laboratory for the Department of Physics, and an office, a drawing room, a wood working shop, a machine shop, a forge room and a foundry room for the Department of Mechanical Engineering. The chemical and geological laboratories, and chemistry lecture room are on the second floor.

In the basement are the boilers for the heating plant of all the buildings and the engine which runs the machinery of the shops.

Woman's Hall was constructed to furnish a home for students. It is 136 by 46 feet in its ground dimensions and has four floors, including the basement, which is so largely above ground as to be well lighted and fit for any use.

In the basement are the dining room, laundry room, storage rooms, etc. The first floor contains the office, parlors and some students' rooms. The second and third floors are entirely devoted to students' rooms. On each floor are closets and bath rooms. The entire building is well furnished and amply supplied with electric lights, steam heat and every sanitary convenience. It is designed to accommodate 72 students.

The gymnasium, north of University Hall, is 114 by 58 feet in its ground dimensions. The main unbroken gymnasium floor is 114 by 43 feet. In the rear of this are the dressing and bath rooms for men and for women. These are supplied with hot and cold water, and the building is lighted by electric lights and heated with steam radiators. In the rear of the building, facing the track and athletic grounds, is a commodious and comfortable grandstand.

THE NEW LIBRARY AND OTHER IMPROVEMENTS

The Legislative Assembly of 1907 appropriated sixty thousand dollars (\$60,000) for the erection and completion of a library building, the enlargement of the heating plant, and for sundry other improvements on the University grounds.

As a commission to erect this building and make these improvements, your honorable body appointed Hon. John M. Evans, member of the State Board of Education, Hon. J. H. T. Ryman, President of the Executive Committee of the State University, and Oscar J. Craig, President of the University.

The commission organized by electing John M. Evans, president, and Oscar J. Craig, secretary. Mr. A. J. Gibson of Missoula, was selected as architect. The architect prepared plans and specifications in accordance

with the general outline which was submitted by the President of the University to your Honorable Board at the December meeting, 1906.

Bids were called for and some four or five propositions were submitted. None of these, however, could be accepted since in every case they exceeded the amount of appropriation. The commission made some revision of the plans and advertised a second time for bids. A second time the commission was obliged to reject any and all bids for the reason that these bids were in excess of what the commission believed should be paid for the work.

Your commission then employed men to make the excavation and to furnish the stone. After this work was well under way they made a contract with Mr. S. H. Williams for completing the foundation, including the granite work. The concrete for the foundation has been put in place. The stone is in readiness and as soon as the weather will permit next spring the work will be completed.

The commission expect to let the contract for the completion of the superstructure some time in January, 1908.

THE UNIVERSITY AND ITS ENDOWMENT

The University of Montana was created by an act of the Montana State Legislature, approved February 17, 1893. The following extracts give the title of the act, and also certain sections that indicate the purpose of the University and the scope of its work.

"An Act to establish, locate, maintain and govern the University of the State of Montana.

"Section 1. There is hereby established in this State at the City of Missoula an institution of learning under the name of and style of the University of Montana."

"Section 6. The object of the University of Montana shall be to provide the best and most efficient manner of imparting to young men and young women on equal terms, a liberal education and a thorough knowledge of the different branches of Literature, Science and the Arts, with their varied applications; and to this end there shall be established the following colleges or departments, to-wit:

"First—A Preparatory Department.

"Second—A Department of Literature, Science and the Arts.

"Third—Such professional and technical colleges as may from time to time be added to or connected therewith.

"The Preparatory Department may be dispensed with at such date and in such wise as may seem just and proper to the State Board of Education.

"Section 7. Such duties or courses of instruction shall be pursued in

the Preparatory Department as shall best prepare the students to enter any of the regular colleges or departments of the University.

"The college or department of Literature, Science and the Arts shall embrace courses of instruction in Mathematical, Physical and Natural Sciences with their applications to the Industrial Arts; a liberal course of instruction in the Languages, Literature, History, Philosophy, and such other branches as the State Board of Education may prescribe. And, as soon as the income of the University will allow, and in such order as the demands of the public seem to require, the said courses of instruction in the Sciences, Literature and the Arts shall be expanded into distinct colleges or departments of the University, each with its own faculty and appropriate title."

"Section 9. Tuition shall ever be free to all students who shall have been residents of the State for one year preceding their admission, except in the Law and Medical Departments, and for extra studies. The State Board of Education may prescribe rates of tuition for any student in the Law or Medical Department, or who shall not have been a resident as aforesaid, and for teaching such studies."

ENDOWMENT

"Section 10. For the support and the endowment of the University there is annually and perpetually appropriated—

"First—The University Income Fund and all other sums of money appropriated by law to the University Income Fund.

"Second—All tuition and matriculation fees.

"Third—All such contributions as may be derived from public or private bounty.

"Section 11. Any person contributing a sum not less than fifteen thousand dollars (\$15,000) shall have the privilege of endowing a professorship in the University, or any department thereof, the name and object of which shall be designated by the State Board of Education."

By an act of Congress dated February 18, 1892, 46,080 acres of land were donated to the State of Montana for University purposes. This land was granted by the Federal Government upon condition that the proceeds from the sale of such land should become a permanent University fund.

The University lands have all been selected. They comprise some of the best lands in the state and are rapidly increasing in value.

CHANGES IN THE FACULTY.

At the December meeting (1906) Dr. Joseph H. Underwood was elected Professor of History and Economics. Dr. Underwood took charge of the department at the beginning of the second semester and has been giving very effective service to the University.

Dr. Underwood graduated from the Western College of Iowa, in

1902 with the degree of B. A. The State University of Iowa conferred on him the degree of M. A. in 1904, and Columbia University gave him the degree of Ph. D. in 1907. At the time of his selection he was serving as Professor of History and Political Science in the Leander Clark College of Iowa.

Dr. Underwood comes to the department with excellent training and experience. He has taken hold of the work with vigor and enthusiasm and has put this new department in good working order.

According to your instructions at the June meeting, 1907, the University Committee has made selections to fill vacant positions in the Faculty of the University.

For the position of Associate Professor of Mathematics, Louis C. Plant of the Bradley Polytechnic Institute of Peoria, Illinois, was selected.

After graduating from the University of Michigan in 1897, Professor Plant received the degree of M. S. from Chicago University in 1904, for graduate work in theoretical and applied mathematics and physics. For the past nine years he has been in the mathematical department of the Bradley Polytechnic Institute at Peoria, Illinois.

His teaching experience has been such that he is well prepared to meet the needs of our mathematical department where one of the special requisites is to make practical application to work in engineering.

For the position of Director of the Gymnasium your committee selected Mr. Albion G. Findlay, who recently graduated from the University of Wisconsin with the degree of A. B.

While in the University, Mr. Findlay distinguished himself in athletics and received thorough training in gymnasium work. In addition to his work as Gymnasium Director, Mr. Findlay gives instruction in the Department of Physics and Geology.

To succeed Miss Young, whose resignation as Dean of Women was received in the early part of July, your committee selected Miss Mary Lenore Stewart of Denver, Colorado.

Miss Stewart graduated in 1901 from the University of Colorado with the degree of A. B. After graduation she was employed for four years as principal of the preparatory department of that university. Having resigned this position of her own accord she was employed in high school work up to the time of her selection by the committee.

A few days before the University opened for the current year the resignation of Professor Robert Sibley of the Department of Engineering was received.

Nathaniel R. Craighill of Milwaukee, Wisconsin, has been placed in charge of the department. Professor Craighill graduated from the mechanical engineering course of the Massachusetts Institute of Technology in 1893 with the degree of S. B. In 1894 he completed the electrical engineering course in the same institution. After one year spent in con-

struction work he was elected to the chair of mechanical engineering in the North Carolina State College of Agriculture and the Mechanical Arts. This position was very acceptably filled for two years. Believing that his usefulness as a teacher in a technical institution would be greatly increased by practical experience, he resigned his position and entered the service of the sewer department of the City of Boston. From 1897 to 1907 he was employed in various kinds of mechanical and electrical engineering work and was for a time in the service of the United States government at Havana, Cuba. At the time of his selection for the chair of engineering in the University he was electrical engineer in charge of the calculating and designing department of the Mechanical Appliance Company, Milwaukee, Wisconsin.

Professor Craighill comes to the University not only with the best training that the schools can provide, but with a practical experience that will be invaluable in his work.

THE LIBRARY

Until the library building is erected the general library is housed in a large well lighted room on the first floor of University Hall. The library contains 18,400 volumes and 7,800 pamphlets. It is open six days in the week. From Monday until Friday, the hours are from 8:30 a. m. to 4:30 p. m.; Saturday from 9 a. m. to 12 noon.

Students have free access to the shelves and the right to draw out books from the library for home use.

The system of department libraries prevails to a limited extent, small collections of books specially needed in connection with laboratory and class room work being deposited in several departments.

Donations to the library are acknowledged in the President's annual report to the Board.

The following are the rules governing the library and reading room:

1. The Library shall be open for reading and study at such hours as the Faculty may prescribe, and in these hours conversation, or other conduct which may divert attention or otherwise annoy, shall not be allowed.
2. Any one wishing any book or periodical (dictionary excepted) must apply to the Librarian for it; and (if the book is not regularly drawn out) must return it to the Librarian before leaving the room.
3. Books not marked "Reference Book" may be drawn from the Library and retained one week, and then may be redrawn for another week; but no books may be kept by one person longer than two weeks.
4. If a book is not returned within the week for which it was drawn, the holder shall be subject to a fine of 10 cents; if not returned within two weeks from the time it was drawn, a fine of 25 cents; if not returned within a month, a fine equal to the price of the book.
5. Reference books, current periodicals and papers cannot be taken from the Library room except by special permission of the Librarian, and then only from the closing of the Library to the first succeeding hour of opening.

6. A violation of any of the foregoing regulations, or other rules which may from time to time be prescribed, may forfeit a student's right to the use of the Library for such time as may be designated.

7. No student may have in possession from the Library at any one time in any one line of work more than two books, except that the Librarian may in special cases allow additional volumes to be drawn on the recommendation of the professor in charge.

8. It is the duty of the Librarian to enforce the above regulations.

THE MUSEUM

The Museum has received numerous contributions during the year. These have come mostly from three sources. (1) The collections made at the Biological Station. (2) The material collected in the Geological Expedition. (3) Donations from friends of the University.

As in the case of the Library we have all our available space filled. Much valuable material is stored away under such conditions that it is practically inaccessible for class use. In the matter of building and room the greatest needs of the University are more space for the Museum and the Library.

BIOLOGICAL STATION

The Federal Congress of 1905 donated to the University of Montana one hundred and sixty acres of land from the Flathead Indian reservation. The object of this grant is to provide a suitable site for a biological station. This land will be selected when the Indian allotments are complete.

The University for the last eight years has conducted a biological station at Big Fork on Flathead Lake. The station is primarily a place for investigation and research, rather than an opportunity for instruction.

In addition to the study of the animal and vegetable life in the region of Flathead Lake valuable material is collected for the museum of the University.

GEOLOGICAL EXPEDITION

For a number of years the Geological Department of the University has been carrying on a systematic survey of the State. Many different localities of the State have been visited and their resources examined. Valuable papers on these resources have been published and valuable specimens for the museum obtained.

THE ORIGINAL FEDERAL LAND GRANT

There were granted to the State of Montana for University purposes by the United States government, forty-six thousand and eighty acres of land. This land has all been selected and the selections approved.

Of these selections, 1,587 acres were classified as timber land; 31,217 acres as grazing land; and 12,286 acres as agricultural land.

The total amount of land sold is 10,714.97 acres.

The Permanent University Fund is made up of money received from the sale of lands and from the sale of timber. The fund is irreducible, but may be loaned and the interest applied to other purposes.

The University Income Fund is made up of moneys received from interest on the permanent fund, and rents and leases from agricultural land and grazing land. This fund was, for a time, applied exclusively to meeting the interest on the bonds that had been issued with this fund as security, but is now devoted to the maintenance of the University.

There was remaining in these funds November 30, the following amounts:

PERMANENT UNIVERSITY FUND

Cash	\$ 6,844.90
Bonds	161,200.00
Total	<u>\$168,044.90</u>

UNIVERSITY INCOME FUND

Cash	\$ 36,054.50
Bonds	4,044.04
Total	<u>\$40,098.54</u>

The investments in bonds are as follows:

Missoula School District No. 1, 4 per cent	\$ 22,000.00
City of Dillon, Waterworks, 5 per cent	6,000.00
City of Great Falls, 4 per cent	30,000.00
Custer County, 4 per cent	27,000.00
Gallatin School District No. 55, 6 per cent	1,200.00
Missoula County Free High School, 4½ per cent	75,000.00
Total	<u>\$161,200.00</u>

UNIVERSITY LANDS

The University buildings are located on a tract of land comprising forty acres. Twenty acres of this land was donated by the Capt. C. P. Higgins estate, and twenty by the South Missoula Land Company.

This tract of land is all under fence and mostly improved. With each year a part of this has been brought under cultivation and new walks and driveways added. As the new buildings have been constructed new lawns have been made, so that the campus presents a symmetrical and beautiful appearance.

Adjoining this 40-acre tract above mentioned and lying to the eastward on the slope of Old Mount Sentinel, is the forty acres of land donated to the University by the Northern Pacific Railway Company. Still to the eastward, contiguous with this body of land and covering the crest of Old Sentinel, is government land which, at the last session of Congress, was donated to the State for University purposes. This last donation gives the University a site for an astronomical observatory that for accessibility and desirability of situation is almost unrivaled.

The last session of the Federal Congress gave the University one hundred and sixty acres of land on the Flathead Indian Reservation to be used as a Biological Station. This selection will be made as soon as the allotments are made to the Indians and for government purposes.

This gift is very opportune, as the lease on the tract of land occupied for the station purposes for the last eight years has expired.

FOUNDER'S DAY

The Faculty by resolution agreed to celebrate February 17, the date on which the bill organizing the University was signed by the Governor, as Founder's Day.

The first observance of the day was on February 17, 1906. A committee of the Faculty had the matter in charge and arranged exercises suitable for the occasion. Addresses were delivered by Hon. Robert B. Smith, ex-Governor of Montana and by Judge Hiram Knowles, late Federal Judge of the District of Montana.

The second observance of the day was on February 17, 1907. The Montana Legislature was in session at this time in Helena, and adjourned in order to attend the exercises in Missoula. Over seventy-five per cent of the members were present. Addresses were delivered by members of the Legislative Assembly and by President Hamilton of the Montana State College of Agriculture and the Mechanic Arts.

PUBLICATIONS

One of the recognized functions of the State University is to investigate the resources of the state and to publish the results. Public education thus contributes to the advancement and development of the interests of the commonwealth. With this purpose in view the University issues from time to time bulletins on subjects of public interest. The University also publishes bulletins and announcements concerning the institution.

The following are the publications for the year ending December 1, 1907:

Bulletin No. 39, Twelfth Annual Report—President Oscar J. Craig.

Bulletin No. 40, Announcement—Fourth Interscholastic Meet—University.

Bulletin No. 41, Announcement—University Biological Station—Professor M. J. Elrod.

Bulletin No. 42, Twelfth Annual Catalogue—President Oscar J. Craig.

Bulletin No. 43, Uniform Course of Study for Accredited High Schools—High School Committee.

Bulletin No. 44, Montana High School Debating League—Professor J. S. Snoddy.

Bulletin No. 45, Announcement—School of Engineering—Professor N. R. Craighill.

Bulletin No. 46, Indian Writings on the Rock Cliffs of Flathead Lake, Montana—Professor M. J. Elrod.

ADMISSION TO COLLEGIATE DEPARTMENTS

On the basis of a four years' preparatory course, fifteen units will be required for admission.

The term unit means one subject pursued for at least thirty-six weeks with not less than four recitations per week, of not less than forty minutes each.

The following is the list of the subjects from which choice must be made, and of the number of units which may be selected in each subject:

English Composition and Literature, 3 or 4.

Mathematics (Algebra and Geometry), 3.

Mathematics (Trigonometry), $\frac{1}{2}$.

History, 1, 2 or 3.

Latin, 2, 3 or 4.

German, 2, 3 or 4.

French, 2, 3 or 4.

Physics, 1.

Chemistry, 1.

Biology, 1.

Botany, 1.

Zoology, 1.

Free-Hand Drawing, $\frac{1}{2}$.

When Biology is elected, credit cannot be given for Botany and Zoology.

The fifteen units required for admission must include the following:

English Composition and Rhetoric, 3.

Mathematics (Algebra, Geometry—Plane and Solid), 3.

Physics, 1.

History, 1.

Latin, German or French, 2.

The remaining five units may be selected from the list above.

ACCREDITED HIGH SCHOOLS

The State Board of Education in a meeting held June 1, 1896, took the following action:

"Candidates seeking admission to any of the regular courses in any state educational institution must be at least sixteen years of age and must possess a good moral character and good bodily health.

"Accredited Schools.—Any high school or academy whose course of instruction covers the branches requisite for admission to one or more of the courses of any state educational institution may be admitted to its accredited list of preparatory schools, after a satisfactory examination by a committee appointed by the State Board of Education. Application for such examination may be made by any school board to the Secretary of the State Board of Education, whereupon a committee appointed by the State Board of Education will examine the course of study and methods of instruction of the school and on the committee's favorable recommendation, and the concurrence of the State Board of Education, it will be entered upon the accredited list of the state educational institution for which it applied. Any graduate of such an approved school will be received by the president of the state educational institution wherein said graduate is entitled to enter, on presentation of proper diploma and certificate from the superintendent of said school, into any of the courses of said institution for which said graduate has been fitted.

"Students of any accredited school who are not graduates must expect examinations as other candidates.

"A school once entered upon the accredited list will remain there until its administration is changed, or until notice is given by the State Board of Education of unsatisfactory results. Upon a change of administration application for continuation upon the list, if desired, must be made. If the work of the principal coming into charge has been recently examined in connection with some other school, a new examination may not be required, but such examination should in all cases be invited.

"Annual reports will be asked for by the State Board of Education from all accredited schools."

This legislation is still in force.

At the December meeting of the Board it appointed a committee "to formulate a uniform plan for accredited high schools." The committee met in Helena, December 28th, 1897, and formulated a plan, and a brief outline of work of accredited high schools, which was adopted at the next meeting of the State Board of Education.

"This committee decided to recommend to the Board that the work of the eighth grades, when arranged, shall be the standard for entrance to the high schools."

This recommendation, which was adopted by the Board, became of effect in 1899, when the State Common School Course of Study was published and placed in the hands of school boards, teachers and superintendents, and it still remains in force.

In June, 1899, the State Board of Education instructed the Diploma Committee to revise the course of study for accredited high schools. At the December meeting the committee asked for further time, which was granted.

At the regular meeting of the Board in June, 1900, the Diploma Committee reported a three years' course of study, which was unanimously adopted.

In December, 1905, the President of the University recommended that the Preparatory Department of the University be discontinued after September 1, 1908, and that at this date the accredited high schools be required to sustain a four years' course of study. The recommendation was unanimously adopted. President O. J. Craig of the University, State Superintendent W. E. Harmon, and Superintendent S. D. Largent were appointed a committee to prepare a four years' course of study for accredited high schools.

The following course was prepared by the committee, and reported to the State Board of Education in June, 1906. It was formally adopted December 4, 1906.

COURSE OF STUDY FOR ACCREDITED HIGH SCHOOLS

FIRST YEAR—FIRST SEMESTER

Classical Course	Scientific Course	English Course	Commercial Course
Latin— First Lessons. Latin Grammar. Algebra. History— Eastern Nations and Greece. English— Composition and Rhetoric. American Authors. Drawing— Twice a week.	Latin— First Lessons. Latin Grammar. Algebra. Physiography, or History— Eastern Nations and Greece. English— Composition and Rhetoric. American Authors. Drawing— Twice a week.	Word Study and Grammar, or Latin. Algebra. Physiography, or History— Eastern Nations and Greece. English— Composition and Rhetoric. American Authors. Drawing— Twice a week.	Word Study and Grammar, or Latin. Algebra. Physiography, or History— Eastern Nations and Greece. English— Composition and Rhetoric. American Authors. Drawing— Twice a week.

FIRST YEAR—SECOND SEMESTER

Classical Course	Scientific Course	English Course	Commercial Course
Latin— First Lessons. Latin Grammar. Algebra. English— Composition and Rhetoric. American Classics. History— Roman. Drawing— Twice a week.	Latin— First Lessons. Latin Grammar. Algebra. English— Composition and Rhetoric. American Classics. History— Roman. Drawing— Twice a week.	Word Study and Grammar, or Latin. Algebra. English— Composition and Rhetoric. American Classics. Physiology, or Roman History. Drawing— Twice a week.	Word Study and Grammar, or Latin. Algebra. English— Composition and Rhetoric. American Classics. Physiology, or Roman History. Drawing— Twice a week.

COURSE OF STUDY FOR ACCREDITED HIGH SCHOOLS

SECOND YEAR—FIRST SEMESTER

Classical Course	Scientific Course	English Course	Commercial Course
Latin— Caesar. Plane Geometry. English— Composition and Rhetoric. American and English Authors. History— Mediaeval. Drawing— Twice a week.	Latin— Caesar. Plane Geometry. English— Composition and Rhetoric. American and English Authors. Botany, or Mediaeval History. Drawing— Twice a week.	Latin, or Botany. Plane Geometry. English— Composition and Rhetoric. American and English Authors. History— Mediaeval. Drawing— Twice a week.	Commercial Geography. Plane Geometry. English— Composition and Rhetoric. American and English Authors. History— Mediaeval. Drawing— Twice a week.

SECOND YEAR—SECOND SEMESTER

Classical Course	Scientific Course	English Course	Commercial Course
Latin— Caesar. Plane Geometry. English— Composition and Rhetoric. American and English Authors. History— Modern. Drawing— Twice a week.	Latin— Caesar. Plane Geometry. English— Composition and Rhetoric. American and English Authors. Botany, or Modern History. Drawing— Twice a week.	Latin, or Botany. Plane Geometry. English— Composition and Rhetoric. American and English Authors. History— Modern. Drawing— Twice a week.	Commercial Arithmetic. Plane Geometry. English— Composition and Rhetoric. American and English Authors. History— Modern. Drawing— Twice a week.

COURSE OF STUDY FOR ACCREDITED HIGH SCHOOLS

THIRD YEAR—FIRST SEMESTER

Classical Course	Scientific Course	English Course	Commercial Course
Latin— Cicero.	Chemistry.	Chemistry.	Bookkeeping.
Solid Geometry.	Solid Geometry.	Solid Geometry.	Solid Geometry.
English— Composition and Rhetoric. American and English Au- thors.	English— Composition and Rhetoric. American and English Au- thors.	English— Composition and Rhetoric. American and English Au- thors.	English— Composition and Rhetoric. American and English Au- thors.
English History, or French, or German.	English History, or French, or German.	Latin. French. German. English History. (Select two.)	Stenography and Typewriting.

THIRD YEAR—SECOND SEMESTER

Classical Course	Scientific Course	English Course	Commercial Course
Latin— Cicero.	Chemistry.	Chemistry.	Economics.
Algebra.	Algebra.	Algebra, or Economics.	Bookkeeping.
English— Composition and Rhetoric. American and English Au- thors.	English— Composition and Rhetoric. American and English Au- thors.	English— Composition and Rhetoric. American and English Au- thors.	English— Composition and Rhetoric. American and English Au- thors.
English History, or French, or German.	English History, or French, or German.	Latin. French. German. English History. (Select two.)	Stenography and Typewriting.

COURSE OF STUDY FOR ACCREDITED HIGH SCHOOLS

FOURTH YEAR—FIRST SEMESTER

Classical Course	Scientific Course	English Course	Commercial Course
Latin— Vergil.	Trigonometry.	French.	Correspondence.
Physics.	Physics.	German.	Bookkeeping.
English— History of English Literature.	English— History of English Literature.	Latin.	American History and Civics.
American History and Civics, or French, or German.	American History and Civics, or French, or German.	Trigonometry. (Select Two.)	Stenography and Typewriting.
		Physics.	
		English— History of English Literature.	
		American History and Civics.	

FOURTH YEAR—SECOND SEMESTER

Classical Course	Scientific Course	English Course	Commercial Course
Latin— Vergil.	Physics.	Physics.	Commercial Law.
English— Masterpieces with applications of principles of English Grammar.	English— Masterpieces with applications of principles of English Grammar.	English— Masterpieces with applications of principles of English Grammar.	Bookkeeping.
American History and Civics, or French, or German.	American History and Civics, or French, or German.	American History and Civics.	American History and Civics.
Physics.	Review— Mathematics.	Commercial Law. Mathematics. French. German. Latin. (Select two.)	Stenography and typewriting.

HANDBOOK FOR ACCREDITED HIGH SCHOOLS

Acting upon your instructions your committee published in August of the present year as explanatory of the course of study, a handbook and guide.

This book not only contains the courses of study but also suggestions as to the character of the work. There are lists of equipment desired in laboratories, lists of desirable reference books and outlines of subjects to be taught. The purpose of this handbook is to render every possible assistance to the high schools in making their work efficient.

LIST OF THE ACCREDITED HIGH SCHOOLS

CITY HIGH SCHOOLS

City	Superintendent
Anaconda.	W. K. Dwyer
Billings	C. S. Brother
Butte	R. G. Young
Chinook	G. H. Willman
Columbus	James H. Doyle
Forsyth	W. F. Clark
Fort Benton	J. W. Lenning
Great Falls	S. D. Largent
Hamilton	J. V. Owen
Havre	T. J. Troy
Helena	R. J. Condon
Virginia City	Frank R. McKenna

COUNTY HIGH SCHOOLS

County	Principal
Beaverhead—Dillon	L. R. Foote
Broadwater—Townsend	John M. Kay
Carbon—Red Lodge	L. D. Fallis
Custer—Miles City	R. H. Daniels
Dawson—Glendive	Ralph L. Hunt
Fergus—Lewistown	P. M. Silloway
Flathead—Kalispell	G. A. Ketcham
Gallatin—Bozeman	E. J. Parkin
Granite—Phillipsburg	G. T. Bramble
Jefferson—Boulder	Bryon E. Toan
Missoula—Missoula	J. F. Thomas
Park—Livingston	Lewis Terwilliger
Powell—Deer Lodge	E. T. Eaton
Sweet Grass—Big Timber	W. C. Ryan
Teton—Chouteau	W. W. Jones

PRIVATE SCHOOLS

Stevensville Training School	M. L. Roark
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THE COUNTY BOARD OF EXAMINERS

The last Legislative Assembly passed an act creating a County Board of Examiners consisting of the County Superintendent and two other persons appointed by the County Commissioners. It is the duty of this board to examine applicants for teachers' licenses, and also to examine all applicants for admission to county high schools. The Faculty of the University, on the recommendation of the President, passed a resolution that eighth grade candidates having failed on this examination should neither be admitted to the Preparatory Department of the University nor admitted to examination for admission to this department. This regulation seems to be an effectual check on the admission of those, either to the high school, or to the Preparatory Department, who are not completely prepared for the work upon which they desire to enter.

APPOINTMENT OF INSPECTOR OF HIGH SCHOOLS

Some years ago, by action of your honorable body, the President of the University, was appointed Inspector of High Schools for Montana. A year or two later your honorable, the State Superintendent of Public Instruction, was appointed Associate Inspector. While the high schools were few in number and in many cases just beginning their organization, this seemed to me to be the most judicious and economical way of attending to this important business. I recommend to your honorable board that this plan be changed and that a high school board be appointed, this board to consist of the President of the University, the President of the School of Mines, the President of the Agricultural College, the President of the Normal College, and the State Superintendent of Public Instruction. I recommend that this board have power to appoint an inspector who is not one of their own number. I further recommend that the amount paid for such duty be adjusted as this board may see fit.

OUR HIGH SCHOOL SYSTEM

Under our present educational system in Montana there are two classes of high schools—the city high school and the free county high school. For the support of the free county high school a tax is levied upon the entire county. It is hardly probable under these conditions that more than one free high school will be established in each county. The city high schools are supported by a tax levied on the property in the city. This arrangement places those towns within the county that do not succeed in obtaining a county high school at a decided disadvantage. I believe that there ought to be some legislation to remedy this. Many states have laws that give assistance to all high schools.

In Wisconsin half the amount expended over and above what is

required to be expended for common school purposes is given by the state to each high school. In the state of Kansas a levy may be made by each county for each high school within the county. The levy in each case is in proportion to the population.

THE UNIVERSITY AND THE HIGH SCHOOLS

A few years ago the Board granted certain free scholarships to students in the accredited high schools. Each year the one holding the highest rank in the graduating class is entitled to a scholarship in whichever state educational institution he may select. This scholarship carries with it freedom from the payment of any fees whatever, but does not include board and books. There are at present in the University twenty students who hold these scholarships. The number of those going out of the state to attend other institutions is largely overestimated, but is still larger than it will be when every school principal and superintendent in Montana is loyal to the state institutions. Many of our school men are graduates of Eastern colleges and seem to think it their duty to do everything in their power that will incline their graduates to attend the schools where they themselves were once enrolled.

TEACHERS' CERTIFICATES TO CERTAIN UNIVERSITY GRADUATES

In accordance with a resolution passed by this Board at the December meeting, 1906, the following bill was introduced in the Legislative Assembly of 1907:

"A Bill for An Act Providing That All Graduates of the University of Montana, who have completed a certain amount of work in the Department of Psychology and Method, shall be entitled to teach in the Public Schools of the State without other or further examination.

"Be it enacted by the Legislative Assembly of the State of Montana:

"Section 1. All graduates of the University of Montana, who have completed and graduated in the four years' course of said school, and have received a diploma certifying that they have attained the degree of Bachelor of Arts, or Bachelor of Science, and have received a certificate stating that they have completed the course of pedagogical instruction prescribed by the University for all persons who intend to teach, shall on registry of said certificate in the office of the State Superintendent of Public Instruction, be entitled to teach in the Public Schools of Montana without further examination, for a term of three years after such graduation, and on furnishing to the State Board of Education satisfactory evidence of having taught successfully in the Public Schools of Montana for a period of two years, shall be entitled to receive from such Board a life diploma.

"Section 2. All Acts and parts of Acts in conflict herewith are hereby repealed.

"Section 3. This Act shall take effect and be in force after its passage and approval."

Similar bills have already been passed in California, Kansas, Michigan, Minnesota, Missouri, Nebraska, Nevada, South Dakota, Pennsylvania, Washington, Texas, Idaho, Vermont, North Dakota, Wisconsin, Iowa, Wyoming and other states.

This legislation is granted because it is believed that those who have completed such a course are well qualified to teach. These persons have had the culture and the training of the University and have also had special training in Method. The best training is the training of the college or the university, best because the most thorough and complete.

This bill was defeated.

That this privilege is withheld from the State University, the head of the public school system, is not only an injustice, but it is detrimental to the general good of education within the commonwealth.

THE ESTABLISHMENT OF FELLOWSHIPS

At the beginning of this collegiate year three fellowships were established: One in Chemistry, one in Physics and Geology, and one in Biology. The fellowship in Chemistry was filled by the appointment of Miss Agnes Fay of the University of Chicago; in Geology and Physics, Joseph W. Streit, a graduate of the University of Montana. The fellowship in Biology has not yet been filled.

DEGREES CONFERRED JUNE 6, 1907

Cora Averill, B. A., (Classical)	Townsend
James Henry Bonner, B. S., (In Engineering)	Missoula
Charles P. Cotter, B. A., (Literary)	Townsend
Charles S. Dimmick, B. S., (In Engineering)	Missoula
Frederick Eugene Dion, B. S., (In Engineering)	Glendive
Stella Louise Duncan, B. A., (Classical)	Kalispell
Florence Editha Ervey, B. A., (Classical)	Spokane, Wash.
Thomas Joseph Farrell, Jr., B. A., (Literary)	Missoula
Linda Ellen Featherman, B. A., (Literary)	Drummond
Mary Monica Fergus, B. A., (Literary)	Whitehall
Susie Garlington, B. A., (Classical)	Missoula
King Garlington, B. S.	Missoula
Ralph Earl Gilham, B. S.	Townsend
Lawrence E. Goodbourne, B. A., (Classical)	Missoula
Laura May Hamilton, B. A., (Literary)	Missoula
Ralph L. Harmon, B. A., (Literary)	Kalispell
Anna J. Hutter, B. A., (Literary)	Missoula
Daisy Kellogg, B. A., (Literary)	Missoula
Jennie A. McGregor, B. A., (Classical)	Missoula
James Hamilton Mills, B. S., (In Engineering)	Deer Lodge
Josiah John Moore, B. S.	Anaconda
Frances Nuckolls, B. A., (Literary)	Butte
William Hovey Polleys, B. S., (In Engineering)	Lincoln, Nebr.
Joseph William Streit, B. S.	Fort Benton
Montgomery De Smith, B. S., (In Engineering)	Hamilton
Lillian Warren, B. A., (Classical)	Missoula
Alice Brown Welch, B. A., (Literary)	Deer Lodge

SCHOLARSHIPS, PRIZES AND MEDALS

The following scholarships, prizes and medals are open for the competition of students in the University:

1. The State Board of Education Scholarships. These are presented by the State Board of Education. Those holding highest rank in graduating classes of the accredited high schools each year are entitled to scholarships for four years in whichever of the State's higher educational institutions they may select. This scholarship releases the holder from all fees that otherwise would be paid to the State.

2. The E. L. Bonner Scholarship. This scholarship is donated by Mrs. Bonner of Missoula, Montana, in memory of her late husband, Mr. E. L. Bonner.

This scholarship was open two years ago to the competition of members of the first year class in the collegiate department, the one holding the highest rank to be entitled to all necessary expenses for the remaining three years of his course. The estimate for necessary expenses is about three hundred dollars annually. This scholarship was won by William Van Eman of Cascade County.

3. The Buckley Prize in Oratory. This prize was founded by Dr. J. J. Buckley of Missoula, Montana, in memory of his father, Mr. H. N. Buckley. The prize is twenty dollars, and is awarded at a contest held near the close of the college year.

4. The Prize Awarded by the Class of 1904. This is a prize donated by the class of 1904. The members of the class in rotation name the particular excellence for which the prize will be given. Last year it was awarded to the student holding the highest rank in Chemistry.

5. The Bennett Prize Essay. Mr. Philo S. Bennett of Bridgeport, Conn., set aside by will \$10,000 to be distributed among twenty-five colleges, selected by Mr. W. J. Bryan, of Lincoln, Nebraska. The amount in each case (\$400) is an endowment, the proceeds of which are to be given as a prize for the best essay on the subject of good government.

The Executive Committee has invested the \$400 as follows: \$250 in University bonds, and \$150 in Missoula County warrants.

6. The Keith Prize in Declamation. This prize is donated by Mr. J. M. Keith, of Missoula, Montana, and is to be striven for in an annual contest in declamation restricted to the Preparatory Department of the University.

The first prize is \$20.00; the second, \$10.00.

7. There are two gold medals given in the Department of Music:

The first is known as the Bess Wilds medal, and is given for the greatest proficiency. The donor is Mr. George Wilds, of Paducah, Ky., and is in memory of his deceased wife.

The second is known as the Reeves medal. It is donated by Mr. Reeves, of Helena. It is given to the one in the Department of Music making greatest progress.

8. The Annie Lewis Joyce Memorial Medal. This was founded by Attorney M. M. Joyce, of Missoula, Montana, in memory of his wife, and is awarded annually for the best essay, thesis, or poem, by a member of the academic senior class.

9. The Cobban Prize in Geology is given by Mr. R. M. Cobban, of Missoula, Montana, to the student showing the best knowledge of geological subjects. Open to advanced students only. The amount of this prize is twenty-five dollars.

STUDENT ORGANIZATIONS

An organization was formed in May, 1906, known as the Associated Students of the University of Montana. The association is composed of students, alumni, and members of the Faculty, and exists for the control of all matters of general student concern.

For some time the Faculty and students had felt the need of a strong centralized organization for the control of student activities. After due consideration a constitution was adopted, and went into effect at the beginning of the first semester, 1906-7.

The officers of the association are a president, vice president, secretary, and manager, who is a member of the Faculty and has charge of the finances of the association and is the custodian of all its properties. These officers, together with two other Faculty members, one other undergraduate student, and two alumni, comprise the executive committee, the governing board of the association.

The athletic and oratorical association and the debating council have been merged into the Associated Students, each enterprise, however, having a standing committee of its own. All other organizations of the students are more or less subsidiary to the Associated Students. The association seems to be a powerful factor in bringing about a closer union between Faculty, students and alumni, and in promoting every worthy college enterprise of the students.

The officers of the association for the present year are:

President	Frederick Greenwood
Vice President	Minta L. McCall
Secretary	Edward A. Wenger
Manager	Professor Jesse P. Rowe

The oratorical association, which has been merged into the Associated Students of the University of Montana, is a member of the State Oratorical League. This league was organized in 1900. The institutions represented are the Montana Wesleyan University, the Montana College of Agriculture and the Mechanic Arts, Montana State Normal College, and the University of Montana. The purpose of the league is to promote interest in oratorical work.

There are two literary societies. The Hawthorne is composed of young men, and the Clarkia, of young women. Both societies are doing effective work in the way of giving training in parliamentary practice and in the different forms of public speaking.

The Young Men's Christian Association and the Young Women's Christian Association both have active and efficient organizations and are accomplishing much good in their respective fields of labor.

The Quill and Dagger is a student organization that has for its purpose the study of the drama. Very efficient and creditable work has been accomplished.

THE KAIMIN

The Kaimin is a University paper published and controlled by the students of the University. The management of this periodical is given to an editorial staff consisting of editor-in-chief, business manager, literary editor, etc. The editor-in-chief is appointed by the Faculty.

The Kaimin is an excellent publication having high ideals and being entirely free from those articles and influences that often mar the pages of a college paper.

The editorial staff deserve great credit for their efficiency in maintaining this publication. The staff for the present year is as follows:

Editor-in-Chief	Ruth L. Smith
Assistant Editor-in-Chief	Nellie C. Bullard
Literary Editors	{ May E. Murphy
	{ Montana Buswell
Society Editor	Florence Thieme
Athletic Editor	Frederick Greenwood
Exchange Editor	Roberta Satterthwaite
Alumni Editor	Gertrude Buckhouse
Local Editor	Winnifred Feighner
Cartoonist	Charles Eggleston
Business Manager	James B. Speer
Assistant Business Manager	Vincent Craig
Advertising Manager	Edward A. Wenger
Circulation Manager	Massey McCullough

INTERCOLLEGIATE CONTESTS

THE STATE ORATORICAL ASSOCIATION

This Association was organized in 1900. The institutions represented are the Montana Wesleyan University, the Montana College of Agriculture and the Mechanic Arts, Montana State Normal College and the University of Montana. The purpose of the association is to promote the interest of work along oratorical lines.

The contest in 1900 gave first place to Laurens Lind Hechler, the representative from the University, and that of 1901 gave first place to Mr. Farris, the representative from the College of Agriculture and Mechanic Arts. In 1902 the honors were won by George E. Barnes of the University, in 1903 by Corliss P. Hargraves of the University, in 1904 by Gilbert J. Heyfron of the University, in 1905 by Mr. Williams of the Montana Wesleyan, in 1906 by Alice Mountjoy from the College of Agriculture and Mechanic Arts, in 1907 by Arbie E. Leech of the University.

ATHLETIC CONTESTS

There has been a very marked interest in athletics during the present year. Mr. Albion G. Findlay, who was appointed director of the gym-

nasium, has proven himself not only an excellent instructor in gymnasium work, but also a good coach in athletics. The football team organized under his management and direction has been uniformly successful not only in winning games but in promoting the proper spirit of clean athletics. The University team holds the state championship.

THE ANNUAL INTERSCHOLASTIC MEET

The high schools of Montana are organized in a league for the promotion and control of athletics. For the last four years annual meets for contests in track athletics have been held on the University grounds. The meeting occurred this year on May 15, 16 and 17.

Usually from twenty to twenty-three schools are represented with from three to twenty contestants from each school. The University pays the railroad fare for three delegates from each high school and provides entertainment for all contestants.

There occurs at the same time the annual contest in declamation. This contest has but one representative from each school.

Great interest is taken in these contests and their influence is very beneficial in promoting uniform standards in athletics and in encouraging excellence in declamation. The high schools of the state become better acquainted with each other and engage in friendly rivalry.

THE HIGH SCHOOL DEBATING LEAGUE

The high school debating league which was organized by the city superintendents and high school principals at a meeting held at the University, May 17, 1906, is proving a success.

For convenience the state was divided into four debating districts. During the first year (September, 1906 to May, 1907) thirteen of the accredited high schools of the state took part in the debates: Seven in the western district, four in the eastern, one in the southern, one in the northern. The district championship in the western district was won by Hamilton; in the eastern, by Billings; in the southern by Livingston; in the northern by Kalispell. In the inter-district contests, Kalispell won over Livingston, Hamilton won over Billings. At the final contest, which was held at Missoula, under the auspices of the University, Hamilton won over Kalispell.

At the time the league was organized, there was some doubt with regard to the high schools being able to pay expenses, on account of the long distances that the visiting teams would have to travel. But this doubt has, in part, been obviated; for at nearly every contest held last year, the school that entertained the visiting team made expenses.

In order that the high schools may have more opportunity for practice in debate, some changes have been made in the plans for the ensuing year.

The districts have been rearranged with the view of having, if possible, an equal number of contests in each district. This arrangement will give the representatives of the schools in each district a chance to practice before they take part in the inter-district contests. That the students may have further practice, arrangements have been made to give each defeated team in the first series of the district contests, an opportunity to debate with some other defeated team, in a special final contest which will be held some time in May.

The excellent results which, so far, have been shown by the work of the young people in the high schools should encourage the students of the other high schools of the state to take part in these debates. By working together the high schools and University can do much that will be mutually beneficial.

UNIVERSITY LECTURE COURSE

A lecture course was undertaken in September, under the control of a joint committee of the Faculty and Associated Students of the University of Montana. The course provides for seven entertainments of high grade, four lectures and three musical numbers. Course tickets were sold at three dollars for the seven entertainments.

The course has been well supported by citizens and students, and large audiences have greeted the four numbers that have already been given. The entertainments are as follows:

Senator B. R. Tillman, Lecture.
 Father Vaughn, Lecture.
 Bishop Galloway, Lecture.
 Senator Taylor, Lecture.
 Cincinnati Ladies' Cremona Orchestra, Concert.
 Gamble Concert Company, Concert.
 Chicago Glee Club, Concert.

ATTENDANCE

There were enrolled in the various schools of the University for the fiscal year ending December 1, 1907, as follows:

Graduate Students	14
Collegiate Students	244
Special Students	11
Preparatory Students	115
Biological Station	9
School of Music	43
Grand Total	436
Counted Twice	17
	419
Deduct School of Music not enrolled in other departments	26
Net Total	393

For class enrollment in the various classes taught in the University see department reports in appendix.

The total enrollment exclusive of the School of Music for the several fiscal years since the opening of the University has been as follows:

For the year ending Nov. 30, 1895	118
For the year ending Nov. 30, 1896	176
For the year ending Nov. 30, 1897	200
For the year ending Nov. 30, 1898	214
For the year ending Nov. 30, 1899	203
For the year ending Nov. 30, 1900	243
For the year ending Nov. 30, 1901	253
For the year ending Nov. 30, 1902	347
For the year ending Nov. 30, 1903	356
For the year ending Nov. 30, 1904	360
For the year ending Nov. 30, 1905	360
For the year ending Nov. 30, 1906	392
For the year ending Nov. 30, 1907	393

THE RHODES SCHOLARSHIPS

Two representatives have been accepted and have gone into residence at Oxford as Rhodes scholars. These two young men are Mr. George E. Barnes (1904) and Mr. J. F. Thomas (1907). Since Mr. Thomas only entered last October it is too soon to have any report on his work.

A recent letter from Mr. Geo. R. Parkin, secretary of the Rhodes Trust for the United States and Canada, says: "You will be glad to see that your first scholar, Mr. Barnes, took in Theology one of the first classes out of the eight secured throughout the University by our men."

Mr. Wylie, resident secretary to the Rhodes Trust at Oxford, writes: "Mr. George E. Barnes, your first Rhodes scholar, was an unqualified success. We shall be more than satisfied if you can send us a succession of men as good as he."

The examination to fill vacancy to succeed Mr. Barnes will be held at the University of Montana, January 21 and 22, 1908.

THE NATIONAL ASSOCIATION OF STATE UNIVERSITIES

The annual meeting of the National Association of State Universities took place in Washington, November 18 and 19. Thirty-three states were represented. Aside from the usual routine work of the reading and discussing of papers on subjects connected with University management, three questions of great importance were before the association.

At the Baton Rouge meeting last year a committee was appointed to draft a bill for a national university, this bill to be introduced at the present session of congress. The committee reported a bill which was approved by the association. This bill provides for a board of twelve trustees, of which the chairman shall be the Commissioner of Education. There is also an

advisory board composed of one from each state—the president of the state university. The bill farther provides that none but graduate students from reputable institutions be admitted and that no degrees be granted. The institution is to be strictly federal, located in Washington and supported by congressional appropriation. It is desired to build an institution that shall be the head of the educational system of the United States and shall be honored both at home and abroad.

Another question which received a great deal of attention was the standardizing of state universities. At present there seems to be very little uniformity in regard to the standard of admission and rules in regard to the granting of degrees. It is further believed that there should be some uniformity in the courses of study in the various institutions. A committee was appointed to collect facts and prepare recommendations to be presented at the next session of the association.

The third question above referred to is that of the admission of the state university to the benefits of the Carnegie Foundation for the Advancement of Teaching. When the foundation was organized, Mr. Carnegie neither excluded nor included the state universities. A committee had been appointed at a previous meeting to make a report and recommendation on this matter. This committee reported in favor of asking the trustees of the Foundation that if they did not see their way clear to place the state universities as beneficiaries of this fund without restriction to place them upon the list for fifteen years. This report was approved and presented to the General Board of the Foundation which met in New York on Wednesday, November 20. This board passed a resolution that they favored a compromise of this nature, provided a satisfactory agreement could be reached between the executive board of the foundation and the National Association of State Universities. Both organizations will meet in Chicago in the latter part of January, at which time it is confidently believed that a satisfactory arrangement will be made.

THE ALUMNI

It is a very gratifying fact that the work done in the University of Montana has received full recognition in all of those older and larger institutions to which some of its graduates have gone in order to take work in technical or professional lines. The University has been represented in such institutions as Chicago University, Columbia, Johns Hopkins, Bryn Mawr, Harvard, Stanford, Dartmouth, and Michigan. In every instance full credit has been given for all work certified to by the University of Montana.

Up to the present time the University of Montana has graduated one hundred and twenty-one students. The degrees represented are those of Bachelor of Arts, Bachelor of Science, Bachelor of Philosophy, and Bachelor of Science in Mechanical Engineering.

It is a pleasure to say that all these graduates of the University are leading honorable and useful lives. Each one is doing his part in rendering service to the world. Not a single case of failure is reported. The number of graduates by years is as follows:

1898	.	.	.	.	.	2
1899	.	.	.	.	.	6
1900	.	.	.	.	.	7
1901	.	.	.	.	.	9
1902	.	.	.	.	.	18
1903	.	.	.	.	.	13
1904	.	.	.	.	.	7
1905	.	.	.	.	.	13
1906	.	.	.	.	.	19
1907	.	.	.	.	.	27
						<hr/> 121

The following list gives the occupations of living graduates. Of the entire number who have graduated from the University only one has died, Miss Ida M. Rigby of Florence, Montana:

Teachers	.	.	.	.	.	38
At Home (Women)	.	.	.	.	.	24
Engineers	.	.	.	.	.	14
Business Men	.	.	.	.	.	8
Government Service	.	.	.	.	.	8
Graduate Students	.	.	.	.	.	6
Doctors	.	.	.	.	.	5
Lawyers	.	.	.	.	.	5
Chemists	.	.	.	.	.	5
Bankers	.	.	.	.	.	2
Journalists	.	.	.	.	.	2
Carnegie Museum	.	.	.	.	.	1
Librarian	.	.	.	.	.	1
Rhodes Scholar	.	.	.	.	.	1
Deceased	.	.	.	.	.	1
						<hr/> 121

The number of those who will receive degrees the present years is about twenty-five.

THE UNIVERSITY AND THE STUDENT BODY

It is the policy of the University to afford every facility possible in the pursuit of truth. Every effort is made to have absolute freedom of action.

To this end there are few regulations and restrictions that interfere with the choice of students regarding the respective lines of work pursued. As far as possible the work is elective. A given number of units is required for graduation and when these units are completed the diploma is given and the degree granted at the next succeeding commencement.

The business like method of dealing with the work obviates many of the difficulties that lie in the class system and the traditions of many of the older institutions.

The students of the University are loyal to the institution and devoted to their work. They believe in themselves and the University. They realize the opportunity that their commonwealth has given them and are making the most of it. It is this state of affairs that explains why we have no need for a committee on discipline.

STANDING OF THE UNIVERSITY OF MONTANA

The University of Montana is the youngest of the state universities, having been established in 1895. Those of its graduates who have gone to professional schools or the graduate departments of Eastern institutions have in every instance received full credit for the undergraduate work pursued at the University and have been admitted to the professional or graduate work desired. The Carnegie Foundation for the Advancement of Teaching made a thorough investigation of the standing of all state universities, the purpose being, that if the state university be admitted to the benefits of the Foundation, to ascertain how many would be eligible.

The following is their rating of the academic standard of the various institutions expressed in units:

University of Georgia.....	11	University of North Carolina.....	11.6
University of Tennessee.....	10	University of South Carolina.....	5.2
University of Ohio	14	University of Indiana.....	15
University of Virginia.....	8.4	University of Alabama.....	10
University of Michigan	14	University of Missouri.....	15
University of Iowa	15	University of Mississippi.....	11
University of Wisconsin.....	14	University of Utah.....	10.7
University of Louisiana.....	9.5	University of Washington.....	15
University of Kansas	15	University of Maine.....	13.5
University of West Virginia.....	12.5	University of California.....	15
University of Illinois	14	University of Minnesota.....	15
University of Nebraska	14	University of Arkansas	10
University of Oregon	15	University of Colorado	15
University of South Dakota.....	15	University of North Dakota.....	13
University of Texas	11.4	University of Nevada.....	12
University of Wyoming	14	University of Idaho.....	15
University of Arizona.....	15	University of New Mexico.....	15
University of Oklahoma.....	15	University of Florida.....	9.9
University of Montana.....	14		

These figures probably represent the standing of the University of Montana as compared with others as accurately as it is possible to make an estimate.

At the present time the University of Montana holds the Chairmanship of the Department of Higher Education in the National Educational Association, and has also membership on its board of directors and in the National Council of Education.

At the recent meeting of the National Association of State Universities, held in Washington, D. C., the University was honored by an appointment on the executive committee of this association.

A BROADER OUTLOOK FOR THE UNIVERSITY

The time has come when a broader outlook should be taken concerning the University. The completion of the irrigation projects now in hand, the opening of the Indian reservations to white settlers, the building of proposed railroads, and the vast increase in the amount of money employed in mining and other industrial enterprises means a great increase in the population of Montana. This increase in wealth and population will increase the responsibility of the University.

The young men and young women of Montana who attend the University should be trained for life in Montana. The teaching should be that which will enable each one to work in his own environment.

Practical teaching should be such as will adapt one to the problems of right living as presented today in our own state.

The University is endeavoring to give instruction suited to the needs of the people of the state. The work done in the University contributes to the development of all the interests of the State, whether industrial or intellectual. The citizens of Montana look to the State to provide for their children the best education available. Is it not just then, that it is the highest duty to provide an education for all the children of the State and crown the system of state education by a University which is sustained by liberal, even generous aid?

"The greatness of the Western states is that the people who have settled within their borders have determined that their schools and their universities should be of the very best type, and that their young people should have the opportunity for an education not a whit inferior to that given by the older states."

In the past whenever appropriations have been asked for the State University the demand has been that they should be in the smallest amount possible and still continue the life of the institution. It is certainly time for the commonwealth of Montana to reverse this policy, and to provide means commensurate with the work to be accomplished.

A letter recently received from Dr. Charles S. Minot of Harvard University makes the following pertinent statement:

"It seems to me that universities are the most important of all factors of civilization, and that no higher work can be done for the benefit of the state than the advancement of universities. Upon them the nation must depend for the creative leaders, both in science and industry, as well as in public life, and what these few leaders do is of more consequence for progress than the doings of all the rest of the nation."

FINANCIAL STATEMENT

A statement of the receipts and expenditures for the fifteen months ending February 29, 1908:

RECEIPTS

From Legislative Appropriations for the three months ending February 28, 1907	\$ 11,750.00
From Legislative Appropriations for the year ending February 29, 1908	57,555.00
From Matriculation Fees, 1907-1908	2,102.50
Total receipts,	\$71,407.50

EXPENDITURES

For Twelve Months Ending November 30, 1907

Advertising	\$ 630.29
Assistants	125.00
Employees	3,660.67
Equipment for departments	2,880.51
Expressage, Drayage and Freights	644.07
General	1,078.65
Gymnasium	369.55
Improvements	279.99
Labor	512.08
Laboratory assistants	564.85
Library	951.74
Office	911.75
Printing and Stationery	1,700.95
Repairs	771.47
Salaries of Faculty	31,168.74
Student labor	231.65
Supplies for departments	1,846.68
Transportation	5.00
Traveling Expenses	447.15
Water, Heat and Light	7,902.86
Woman's Hall	283.91
Total Expenditures	\$ 56,967.56
Balance on hand	\$ 14,438.94

ATHLETIC FUND

Athletic Fees, Nov. 30, 1906, to Nov. 30, 1907	\$551.00
Expended for supplies and equipment	551.00

WOMAN'S HALL FUND

RECEIPTS

Balance from 1905-1906	\$1,904.89
Receipts from Sept. 1, 1907, to date	293.75
Balance on hand	\$2,198.64

APPENDIX

EXTRACTS FROM DEPARTMENT REPORTS

DEPARTMENT OF PHILOSOPHY AND EDUCATION

W. F. BOOK, Ph. D., Professor.

To the President of the University:

Since my last report this department has been relieved of the classes in History and Economics which are now in charge of the professor of that department. This has greatly facilitated the work of the department of Philosophy and Education and enabled me to do more thorough work. I have endeavored to extend and advance the work of the department as fast as conditions will permit. As heretofore, it has seemed wise to restrict the courses offered in the department to third and fourth year students. This tends to retard the growth of the department as to numbers but enables me to do better work.

The following classes, with their enrollment, have been organized during the year:

SEMESTER BEGINNING FEBRUARY 6, 1907

Elementary Psychology	25
Experimental Psychology	4
Ethics	12
Principles of Teaching	10
High School Pedagogy	12
Total	63

SEMESTER BEGINNING SEPTEMBER 11, 1907

Elementary Psychology	20
Introduction to Philosophy	8
History of Ancient Philosophy	8
History of Education IV	7
Educational Classics	4
Graduate Students doing Special Work in the Department	4
Total	51

The general equipment of the department has been much increased during the year. Complete files of the American Journal of Psychology and Psychological Review have been purchased, bound, and placed at the disposal of the students. Some fifty new volumes of standard books in Philosophy, Psychology, and Education have been added to the library. The former meager laboratory equipment has been supplemented until many of the important psychological principles and laws can be demonstrated. As soon as suitable rooms can be provided and equipped with water and gas, laboratory courses in Psychology may be profitably given. With the continued liberal support of the department given during the past year enough apparatus can be made and purchased in the next few years to carry on any psychological work now called for, as well as it is done anywhere.

In the purchase of apparatus and books I am trying to lay the basis for a strong future department as well as to meet present needs.

The time seems to be ripe for an enlarged development of University departments of education, departments that not only provide the best education and training for prospective teachers that the present advancement of science makes possible, but departments where all educational problems are made the subject of scientific investigation the same as in Physics, Chemistry and the rest. The University of Montana should not only provide the proper education and training for those Montana boys and girls who desire to prepare themselves to teach in the high school, but by its inspiration and the results of its investigation of present educational problems, lead and direct the work of education in the state. No subject is in such crying need of investigation today as education. We have had theories of education in abundance; we need a science. A few leading universities in this country have within a year taken up the special study of the problems of learning. In Germany the serious study of experimental *Pedagogik* has become an integral part of the work of every University. Believing that in this department of its work the University of Montana can be of special service to the future of the state, I call attention to these facts and ask that it be made one of the pioneers in this work. Should it seem profitable and wise to you, I am ready to suggest and discuss definite plans.

DEPARTMENT OF HISTORY AND ECONOMICS

JOSEPH HARDING UNDERWOOD, M. A., Ph. D., Professor.

To the President of the University:

This department was reorganized as a distinct department with the semester beginning February 6, 1907.

The first preparatory history class of the semester beginning February 6, 1907, was taught by Miss Anna F. Carter. Two students have done work more advanced in character than has yet been offered as a general course.

The professor in this department has completed a work on *American Economic Evolution*, published in November, 1907, by The Macmillan Co., New York.

The professor and Mr. Arthur I. Morgan, an advanced student in this department, have made a study of inheritance taxation in the Northwest, upon which the professor, as Commissioner from Montana, made an address November 12, 1907, at the National Conference on State and Local Taxation at Columbus, Ohio, to be published by the National Tax Association.

Mr. Arthur I. Morgan has undertaken a study of the land policy of Montana, under the direction of the Carnegie Institution of Washington, D. C., to be published by the Carnegie Institution.

The department is engaged upon a study of land reclamation in Montana.

The enrollment is as follows:

SEMESTER BEGINNING FEBRUARY 6, 1907

Preparatory Classes—	
Ancient History	19
Mediaeval and Modern History	24
Total	43
College Classes—	
European History	25
American Constitutional History	16
Economic Problems	13
Special Students—	
English Constitutional History	2
American Financial History	1
Total	57

SEMESTER BEGINNING SEPTEMBER 11, 1907

Preparatory Classes—	
Ancient History	11
Mediaeval and Modern History	14
Total	25
College Classes—	
European History	35
Economics	29
Special Students—	
Sociology	1
Finance	1
Total	66

DEPARTMENT OF LITERATURE

FRANCES CORBIN, B. L., Professor.

To the President of the University:

The following report for the Department of Literature is respectfully submitted:

SEMESTER BEGINNING FEBRUARY 6, 1907

College—	
Literature II	12
Literature IV	19
Literature VI	11
Literature VIII	19
Literature X	3
Literature XI	26
Theses	2
Preparatory—	
Literature	30
Total	122

SEMESTER BEGINNING SEPTEMBER 11, 1907

College—		
Literature I	20	
Literature III	9	
Literature V	10	
Literature VII	38	
Literature X	2	
Preparatory—		
Literature	22	
Total	101	

DEPARTMENT OF ELOCUTION AND PHYSICAL CULTURE

RUTH ELISE KELLOGG, Instructor.

To the President of the University:

The following report of the Department of Elocution and Physical Culture for the year ending December 1, 1907, is respectfully submitted:

ELOCUTION

The work in this department is the same as in previous years.
 Elocution I., elements of Practical Elocution, with selections for critical study (2 hours per week).
 Elocution II., continuation of Course I. (2 hours per week).
 Elocution III., selections from classic literature and program construction (2 hours per week).
 Elocution IV., advanced work in art of Expression.
 Preparatory Elocution. This course is arranged for students in the Preparatory School (2 hours per week).

The enrollment is as follows:

SEMESTER BEGINNING FEBRUARY 6, 1907

Elocution II	25
Oratory and Debate	6
Preparatory Elocution	7
Total	38

SEMESTER BEGINNING SEPTEMBER 11, 1907

Elocution I	33
Elocution III	3
Total	36

PHYSICAL CULTURE

The students in this department number as follows:

SEMESTER BEGINNING FEBRUARY 6, 1907

Collegiate Gymnasium for Women, Section 1	26
Collegiate Gymnasium for Women, Section 2	11
Total	37

SEMESTER BEGINNING SEPTEMBER 11, 1907

Collegiate Gymnasium for Women, Section 1	32
Collegiate Gymnasium for Women, Section 2	19
Preparatory Gymnasium for Women	17
Total	68

DEPARTMENT OF MODERN LANGUAGES

FREDERICK C. SCHEUCH, B. M. E., A. C., Professor.

To the President of the University:

The following report of the Department of Modern Languages for the year ending December 1, 1907, is respectfully submitted.

The work that has been and is being given comprises the following courses in:

German

Course I. First semester 1907-8. Grammar (Becker's). Twenty-four students applied for beginning German at the opening of the University. It has been noticed that the standard of work can be materially raised, i. e., more work will be done this year in this course as the new students seem better prepared than in former years. The work as planned this year will cover the entire grammar, and the following readers will be used: Gluck Auf, Immensee, Carruth's Reader. Some time is devoted daily to conversation in German. Four times per week (M., T., W., Th.)

Course II. Given the second semester of 1906-1907. Becker's Grammar was completed. Bernhardt's Composition and Conversation was used. Carruth's reader was completed. One hour per week was devoted to conversation. Five times per week (M., T., W., Th., F.)

Course III. Wilhelm Tell was begun in September and will be completed by January 1, 1908. It will be followed by Schiller's Maria Stuart and some modern work such as Karl Heinrich. According to the amount of work done either three or four credits will be given. The class reports three times per week.

Course IV. Second semester 1906-7. Readers used were: Maria Stuart, Die Jungfrau von Orleans and Max Muller's "Deutsche Liebe." Rapid reading at sight was demanded. Three times per week.

Course V. First semester 1907-8. The class reports three times per week and is reading rapidly Maria Stuart; it will be followed by Schiller's Wallenstein and Schleffel's Ekkehart.

Course VI. Second semester 1906-7. Peter Schlemil was read at sight. Schiller's Ballads and Der Trompeter von Sackingen, Nathan der Weise were given to two students out of class. Lack of hours prevented the work being given regular hours.

Course VII. First semester 1907-8. The course is elective. Work is mainly sight translation. As a reader Goethe's Faust is prepared.

Preparatory German. As a reader in Second Preparatory Becker's Grammar was used and Carruth's Reader was partly read. The Third Preparatory work, a continuation of Second Preparatory, was given by Dean Young. Both the grammar and the reader were completed. Students who have completed the Preparatory German may enter college German Course III, without receiving credit for Courses I and II.

French

What has been said regarding beginning German is equally true of beginning French. The courses offered are:

Course I. Chardenal's Grammar is in use and by the 15th of the present month Rollier's French Reader will be used, followed by Daudet's *Trois Cortes*. Four times per week.

Course II. Second semester 1906-7. Finished and reviewed Chardenal's Grammar. Part of each hour was devoted to conversation and composition.

Course III. First semester 1907-8. The *Abbe Constantin* was begun and will be completed by December 15th, to be followed by *Colomba* or *The Three Guardsmen* by Dumas. The class reports three times per week and according to the amount of work done either three or four credits will be given.

Course IV. Second semester 1906-7. *Les Miserables* was completed and some rapid sight reading was undertaken.

Course V. First semester 1907-8. *Notre Dame de Paris* is being read, to be followed by some of Moliere's plays and the *Ca Ira* series of plays will furnish material for rapid reading.

Spanish

During the last two years courses of Spanish have been demanded and courses have been given. As the work is purely elective and the number of hours limited, the higher courses in Spanish have never been given to the students. Two years' work has been planned and given as follows:

Course I. Ford and Hill's Grammar is used. By December 20th the beginning reader will be in use. The class reports three times per week.

Course II. Second semester of 1906-7. *Loiseaux* and *Maissants* Grammar was finished, the same was reviewed and *Pinney's Spanish* and English conversation was used as a text.

Courses III and IV. Advanced work in Spanish should be given, but on account of lack of time the work has never been attempted.

The following is a summary of classes and enrollment:

SEMESTER BEGINNING FEBRUARY 6, 1907

German—		
Course II	22	
Course IV	20	
Course VI	10	
Course VIII (Special)	2	
Preparatory, Second	7	
French—		
Course II	13	
Course IV	5	
Course VI	2	
Spanish—		
Course II	6	
Total	87	

SEMESTER BEGINNING SEPTEMBER 11, 1907

German—		
Course I	24	
Course III	22	
Course V	17	
Course VII	3	

French—		
Course I	.	27
Course III	.	9
Course V	.	4
Spanish—		
Course I	.	8
Total	.	<hr/> 114

DEPARTMENT OF CHEMISTRY

WILLIAM D. HARKINS, A. B., Ph. D., Professor.

AGNES L. FAY, M. S., Assistant.

To the President of the University:

During the past year apparatus to accommodate four students has been installed for a new course in Electro-Chemistry and Electrical Measurements. This course is very important for students in engineering and additional apparatus should be supplied since the number of students during the coming year will be much larger.

The laboratory work in Elementary Chemistry is now in charge of Miss Agnes La Foy Fay, B. S., M. S., a graduate in chemistry of the University of Chicago. Miss Fay is an efficient teacher, having had several years experience in teaching chemistry in colleges.

The head of the department spent the summer vacation in research work at Stanford University. One scientific paper has been published in the Journal of the American Chemical Society, and several others will be published during the coming year. The topic at present under investigation is the Rusting of Iron and Other Metals.

The Chemistry department is the only science department which has not been given special funds for research work. Two important subjects which should be investigated are:

- (1) The Gas-Producing Power of Montana Coals.
- (2) The Purity of Montana Water Supplies.

The enrollment of students in the courses during the past year was as follows:

SEMESTER BEGINNING FEBRUARY 6, 1907

General Chemistry	.	50
Quantitative Analysis	.	6
Photography	.	2
Thermodynamics	.	5
Wet Assaying	.	2
Total	.	<hr/> 65

SEMESTER BEGINNING SEPTEMBER 11, 1907

Elementary Chemistry	35
Qualitative Analysis	4
Electro Chemistry	4
Organic Chemistry	2
Research	1
Total	46

DEPARTMENT OF PHYSICS AND GEOLOGY

JESSE P. ROWE, A. M., Ph. D., Professor.
 JOSEPH W. STREIT, B. S., Fellow in Physics.
 A. G. FINDLAY, A. B., Assistant in Geology.

To the President of the University:

The following report of the Department of Physics and Geology for the year ending December 1, 1907, is respectfully submitted:

The work of the Department of Physics and Geology during the past year has been successful in every way.

The classes in Geology and Mineralogy are much larger than of former years and the work is of a higher order. There is a great demand along these lines and the department is trying in every way to meet this demand.

The Department of Physics has appointed Mr. J. W. Streit as fellow in Physics, and Mr. A. G. Findlay of the University of Wisconsin is acting as assistant in Geology and Mineralogy. The departments are growing so large that it is almost necessary to employ an instructor in Physics; this will be absolutely necessary when the Department of Geology moves into the new building.

Many new pieces of apparatus have been purchased for the physics department during the past year. Minerals, relief maps and geological charts have been added to the Department of Geology.

Besides the regular University work the head of the department has done special work for the U. S. Geological Survey, and conducted a five-weeks geological expedition for the University Geological Survey. A list of the published results of the summer geological work is found below. Besides these publications the summer expeditions have furnished much valuable museum material.

List of papers published by J. P. Rowe, Professor of Geology, University of Montana, Missoula:

1. Some Volcanic Ash Beds of Montana. University Bulletin No. 17, Geological Series No. 1, 1903. 32 pages, 9 plates, 10 figures.
2. Some Montana Coal Fields. American Geologist, Dec. 1903.
3. Nodular Barite and Selenite Crystals of Montana. American Geologist, 1904, vol. 33, pp. 198-199.

4. Montana Academy of Science. Science, 1904.
5. Pseudomorphs and Crystal Cavities. American Journal of Science, 1904, vol. 18, page 80, 1 Fig.
6. Montana Before Man. Illustrated, Standard, 1904.
7. Montana Gypsum Deposits. American Geologist, Feb. 1905. Vol. 35, 20 pages, 7 plates, 3 figures.
8. Montana Coal Fields, Their Commercial Value. Mining Magazine (New York), March 1905. Vol. 9, No. 3, 11 pages, 1 map, 7 cuts.
9. Mateo Tepee. American Geologist, Oct. 1906.
10. Montana Clay Industry. Brick, Jan. 1906 (Illustrated).
11. Montana Clay Industry. Brick, March 1906 (Illustrated).
12. Montana Coal and Lignite Deposits. University of Montana Bulletin No. 35, Geol. Series, No. 2. 125 pages, 1 map, 25 plates, 9 figures.
13. Montana Building Stones. Rock Products, Louisville, Ky., Standard (Illustrated).
14. Montana Clay, Building Stones, Lime and Gypsum. University of Montana Bulletin, Geol. Series, No. 3. 150 pages, 1 map, 45 plates, (In Press).
15. Glacial Lakes of Western Montana. Journal of Geology, Chicago, 1906, (Illustrated).
16. Montana Coal and Lignite Deposits. The Mining World, January 19, 1907.
17. The Western Clay Manufacturing Co., Helena, Montana. Brick, March 1907.
18. Non-Metallic Economic Geology of Montana. Bulletin, University of Montana (In Press).
19. Butte Sewer Pipe and Tile Company. Brick, May 1907.
20. Montana Coal Mines. Their Methods and Machinery. Mines and Minerals, June 1907.
21. Montana Gypsum Deposits. Mines and Minerals, September 1907.

The following are the classes organized by the department during the past year and the number enrolled in each class:

SEMESTER BEGINNING FEBRUARY 6, 1907

Third Preparatory Physics	34
College Physics II	8
Geology II	5
Mineralogy IV (Blow Pipe Analysis)	4
Mineralogy I	4
Economic Geology	5
Total	60

SEMESTER BEGINNING SEPTEMBER 11, 1907

Third Preparatory Physics	26
College Physics I	14
Geology I	8
Mineralogy IV	11
Lithology and Advanced Mineralogy	2
Total	61

DEPARTMENT OF DRAWING AND PAINTING

ELOISE KNOWLES, Ph. B., Instructor.

To the President of the University:

The work of the department has not changed materially in the past year. Design in metal work and in clay modeling has been introduced. It is the purpose of the department to develop this line of work to a considerable extent. A new collegiate course called "Teachers' Drawing" has been added. It endeavors to give practical work, and some study of recent tendencies in art instruction to students intending to teach.

The small number of students in the preparatory department has enabled the instructor to develop the collegiate work more satisfactorily.

The equipment has been increased by a number of books on the History of Art, tools for metal work, a few pictures of recent illustrating, and supplies of varying character. A large case is in process of construction.

The enrollment of students has been as follows:

SEMESTER BEGINNING FEBRUARY 6, 1907

Second Preparatory Drawing	34
Second Preparatory Drawing (Beginning Class)	6
Third Preparatory Drawing	22
Third Preparatory Drawing (Beginning Class)	8
Black and White Work, Course I	7
Water Color Painting, Course V	2
Water Color Painting, Course VI	1
Oil Painting, Course IX	1
Design, Course XIII	1
Teachers' Drawing, Course XV	2
History of Architecture, Course II	8
History of Sculpture, Course III	12
Total	104

SEMESTER BEGINNING SEPTEMBER 11, 1907

Second Preparatory Drawing	15
Second Preparatory Drawing, (Second Sem. Work)	4
Third Preparatory Drawing	14
Black and White Work, Course I	9
Black and White Work, Course II	3
Water Color Painting, Course V	7
Water Color Painting, Course VI	1
Oil Painting, Course IV	2
Design, Course XII	4
Teachers' Drawing, Course XV	2
History of Painting, Course I	6
Total	67

DEPARTMENT OF ENGINEERING

NATHANIEL R. CRAIGHILL, S. B., Professor.
JAMES H. BONNER, B. S., Assistant.

To the President of the University:

The general system of instruction of the department has been substantially the same during the past year as in previous years. The enrollment was greater than ever before, showing a steady growth, which however, is not surprising in view of the fact that there are more engineering projects on foot in the state than at any time in her history. Practically all of our graduates who care to find profitable employment in the state, and judging from the present outlook, positions are available in Montana each year for many times the number of young men that are graduated in Engineering from the University; also, as a rule, the compensation for this class of professional work is as good as, if not better, than it is in other sections of our country. The names of those who graduated in June, together with the titles of their theses are as follows:

James H. Bonner, Map of Flathead Indian Reservation.

Charles S. Dimmick and Montgomery De Smith, Electrical Measurements.

William H. Polleys, Design of a Portable Sawmill.

Frederick E. Dion and James H. Mills, A Research in Electrical Testing Methods.

Mr. James H. Bonner is filling the position of graduate assistant most creditably and Mr. Herman C. McGregor, that of undergraduate assistant in the shops. Mr. Richard Kessler, the University engineer, looks after the department engine and electrical machinery and assists in the laboratory work.

The following is a list of the classes taught in the department during the past year with the number of students in each:

SEMESTER BEGINNING FEBRUARY 6, 1907

First Year Drawing	23
Surveying	12
Electrical Laboratory	6
Graphic Statics	5
Electrical Construction	5
Shopwork, Preparatory	25
Shopwork, Collegiate	20
Mech. Drawing, Preparatory	25
Machine Design	1
Mechanical Laboratory	5
Kinematics	6
Alternating Currents	6
Field Work	12
Analytical Mechanics	6
Hydraulics	5
Descriptive Geometry	9
Total	176

SEMESTER BEGINNING SEPTEMBER 11, 1907

First Year Mechanical Drawing	24
Graphic Statics	6
Theoretical Electricity	6
Electrical Laboratory	6
Mechanical Laboratory	10
Hydraulics	6
Mechanical and Electrical Design	6
Surveying	14
Descriptive Geometry	15
Mechanism	6
Field Work and Topography	14
Thermodynamics	5
Drawing, Preparatory	19
Carpentry and Joinery	10
Wood-turning and Pattern-making	10
Forging	8
Chipping, Filing and Machine Tool Work	4
Total	169

The present incumbent took charge of the department October 17, 1907. His policy will be similar to that of his predecessors, viz: to give such sound and thorough instruction in the principles and practice of engineering that our graduates will be equipped to deal with engineering problems from the most favorable standpoint.

The department has been broadened to meet the requirements of the times, notably by the addition of French or German and Spanish (optional) to the course of studies in the first and second years. In the fourth year options are offered in Mill Engineering, Telephony, Dynamo and Motor Design and Heating and Ventilation.

A two-years postgraduate course in mechanical and electrical studies is offered leading to the degree of Mechanical or Electrical Engineering according to the studies elected; also, an advanced course of study in civil engineering extending over two years is offered, for the successful completion of which the degree of Civil Engineer is conferred. A bulletin setting forth the work of the Engineering School has been issued and mailed to such persons both in the state and outside, as it was thought would be interested.

DEPARTMENT OF LATIN AND GREEK

WM. M. ABER, A. B., Professor.

To the President of the University:

The following report of the Department of Latin and Greek for the year ending December 1, 1907, is respectfully submitted:

SEMESTER BEGINNING FEBRUARY 6, 1907

Preparatory Classes—	
First Preparatory Latin	8
Second Preparatory Latin	12
Third Preparatory Latin	8
Total	28
College Classes—	
Latin II	13
Latin IV	11
Latin VI	3
Roman Life	19
Greek	2
Total	48

SEMESTER BEGINNING SEPTEMBER 11, 1907

Preparatory Classes—	
First Preparatory Latin	2
Second Preparatory Latin	7
Third Preparatory Latin	8
Total	17
College Classes—	
Latin I	7
Latin III	13
Latin V	6
Greek Life	15
Greek	2
Total	43

DEPARTMENT OF MATHEMATICS

CYNTHIA E. REILEY, B. S., Professor.

L. C. PLANT, Ph. B., M. S., Professor.

To the President of the University:

The following report for the Department of Mathematics is respectfully submitted:

SEMESTER BEGINNING FEBRUARY 6, 1907

Algebra, First Preparatory	26
Plane Geometry, Second Preparatory	23
Solid Geometry, Third Preparatory	28
Elective Geometry, Collegiate	3
Higher Algebra	37
Calculus	9
Total	126

SEMESTER BEGINNING SEPTEMBER 11, 1907

Algebra, First Preparatory	9
Plane Geometry, Second Preparatory	19
Solid Geometry, Third Preparatory	21
Trigonometry	33
Analytic Geometry	13
Calculus	8
Analytic Mechanics	6
Least Squares	7
Thermodynamics	5
Total	121

DEPARTMENT OF ENGLISH AND RHETORIC

JAMES S. SNODDY, A. M., Professor.

To the President of the University:

The following report for the Department of English and Rhetoric is respectfully submitted:

SEMESTER BEGINNING FEBRUARY 6, 1907

Preparatory—	
English Composition (First Year)	21
English Composition (Second Year)	23
College—	
English II, Description	10
English IV, Narration	12
English VIII, Middle English	12
English X, Ballads	9
Theme Work	2
Total	89

SEMESTER BEGINNING SEPTEMBER 11, 1907

Preparatory—	
English Composition (First Year)	8
English Composition (Second Year)	12
College—	
English I, Elementary Rhetoric	33
English III, Argumentation	6
English V, Versification	12
Theme Work	3
Total	74

THE LIBRARY

GERTRUDE BUCKHOUSE, B. S., Librarian.

To the President of the University:

The following report for the Library is respectfully submitted:

The year has been one of great activity in the Library, and many valuable additions have been made to the books.

During the year fourteen volumes were borrowed from the Butte Public Library.

Statistics

Number of volumes in library	18,946
Number of Pamphlets	7,941
Number of volumes added during year	546
Number of volumes added by purchase	496
Number of volumes added by gift	50
Gifts of Montana periodicals	39

The aids in finding material in the library on any subject are:

The card catalogue—in which a record of all books in the library may be found alphabetically arranged by author, title, and subject.

The shelves—All books on one subject stand together, and books on related subjects are generally on adjacent shelves.

Indexes—Poole's Index to periodical literature, 1882-1902; Readers' guide to periodical literature, 1902 to date.

Rules not found in general printed rules:

Books specially referred to by any professor become temporarily reference books and may be taken from the library under the same conditions as reference books.

Writing or markings in books belonging to the library, or their mutilation in any manner, is forbidden.

Library hours on school days are from 8:30 a. m. to 4:30 p. m.

The following is a list of the periodicals on file for the use of members of the University:

American Antiquarian.
American Architect.
American Chemical Journal.
American Journal of Science.
American Journal of Physiology.
American Machinist.
American Mathematical Society Bulletin.
American Mathematical Monthly.
American Journal of Psychology.
American Naturalist.
American Physical Educational Review.
Analyst.
American School Board Journal.
Analytische Chemie, Zeitschrift Fur.
Annals and Magazine of Natural History
Anorganische Chemie, Zeitschrift Fur.
Anorganischen Chemie.
Archaeology.

Associated Engineering Societies, Journal of.
 Athenaeum.
 Atlantic Monthly.
 Auk.
 Biblical World.
 Bird-Lore
 Book Buyer.
 Bookman.
 Botanical Gazette.
 Brick.
 Brush and Pencil.
 Cassier's Magazine.
 Century.
 Chautauquan.
 Chemisches Central Blatt.
 Chemisches Societe de Paris.
 Classical Journal.
 Classical Review.
 Cosmopolitan.
 Craftsman.
 Critic.
 Current Literature.
 Deutsche Rundschau.
 Dial.
 Economic Geology.
 Education.
 Electrical World.
 Educational Review.
 Engineering (London).
 Engineering Magazine.
 Engineering News and American Railway Journal.
 Engineering and Mining News.
 Entomological News.
 Fels zum Meer.
 Fliegende Blatter.
 Forest and Stream.
 Forum.
 Foundry.
 Genera Insectorum.
 Gute Kamerad.
 Harper's Magazine.
 Harper's Weekly.
 Independent.
 International Studio.
 Inter-Mountain Educator.
 Journal of American Chemical Society.
 Journal of American History.
 Journal of Chemical Society (London).
 Journal of Geology.
 Journal of Sociology.
 Journal of the Royal Microscopical Society.
 Ladies' Home Journal.
 Library Journal.
 Literary Digest.
 Living Age.
 McClure's.
 Masters in Art.
 Mathematics.
 Mind and Body.
 Mines and Minerals.

Mining World.
 Monist.
 National Geographic Magazine.
 Nature.
 Die Naturlichen Pflanzenfamilien.
 Nautilus.
 Neurology, Comparative,
 N. Y. Botanical Garden.
 Nineteenth Century.
 North American Review.
 Outing.
 Outlook.
 Photographic Times (Bulletin).
 Physical Review.
 Plant World.
 Poet Lore.
 Political Science Quarterly.
 Popular Science Monthly.
 Power.
 American Journal of Psychology and Scientific Methods.
 Psychological Bulletin.
 Psychological Review.
 Public Libraries.
 Public Opinion.
 Public Library Quarterly.
 Public School Journal.
 Publisher's Weekly.
 Queen's Quarterly.
 Railway and Locomotive Engineering.
 Reader's Guide to Periodical Literature.
 Review of Reviews.
 School and Home Education.
 School of Mines Quarterly.
 School Review.
 School, Science and Mathematics.
 Science.
 Scientific American and Supplement.
 Scribner's.
 Success.
 Torrey Botanical Club.
 Torreya.
 Uber Land und Meer.
 World's Work.
 Zeitschrift fur Wissenschaftliche Mikroskopie
 Zoologischer Anzieger.
 Zoologist.
 Anaconda Standard.
 Helena Independent.
 Butte. Miner.

The following papers are donated by their respective publishers:

Belt Valley Times.
 Basin Progress.
 Big Timber Pioneer.
 Yellowstone Leader, Big Timber.
 Billings Times.
 Billings Daily Gazette.
 The Sentinel, Boulder.
 The Avant-Courier, Bozeman.

The Tribune Review, Butte.
 Butte Evening News.
 Butte Inter Mountain.
 The Revielle, Butte.
 The Chinook Opinion.
 The Conrad Observer.
 The Dillon Examiner.
 The Forsyth Times.
 The Glendive Independent.
 The Western News, Hamilton.
 The Ravalli Republican.
 The Valley County News, Glasgow.
 The Havre Herald.
 The Kalispell Bee.
 The Inter Lake, Kalispell.
 The Montana Daily Record.
 The Independent, Miles City.
 The Madison County Monitor.
 The Madisonian, Virginia City.
 The Phillipsburg Mail.
 The Pony Sentinel.
 The Rocky Mountain Husbandman.
 The Rocky Mountain Leader, Boulder.
 The Silver State.
 The Stevensville Register.
 The Northwest Tribune, Stevensville.
 The River Press, Fort Benton.
 The Rosebud County News.
 The Choteau Acantha.
 The Rocky Mountain Leader.

EXCHANGES

The list of exchanges increases constantly. For the list of exchanges see the President's Report for 1903-1904.

Number of volumes received	10
Number of pamphlets	370

ENROLLMENT

SEMESTER BEGINNING FEBRUARY 6, 1907

Library Science	12
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SEMESTER BEGINNING SEPTEMBER 11, 1907

Library Science	34
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SCHOOL OF MUSIC

MRS. BLANCHE WHITAKER, Director.

To the President of the University:

I have the pleasure to report a very satisfactory year's work in this department. The course of study has been on the same lines as hitherto, and with very few exceptions the students have worked with results that are creditable to all around. Several recitals were held during the year, and showed good preparation and careful study. In the majority of cases the selections were memorized and their interpretation won very favorable criticism. The orchestra has done excellent work and whilst somewhat weak as regards wind instruments, is exceptionally strong in strings. The personnel is at present as follows:

First Violins—Frederick Greenwood, Verna Green, Thula Toole, Lida Hurlbut.

Second Violins—Hulda Reed, Everett Hughes, Claire Salisbury.

Cornet—F. Martz.

Clarinet—Herman McGregor.

Trombone—James H. Bonner.

Cello—Miss Taylor.

Piano—Fay Foster.

Organ—Clarissa Spencer.

Drums—Massey McCullough.

The piano school continues to be in a satisfactory condition, and the work of the year has been of an excellent grade. The competition for the various medals awarded in June was exceedingly close, Miss Orvis and Miss Foster almost making a tie for the Bonner medal, which was won by Miss Orvis. The winners of the other medals were Fay Foster, Clarissa Spencer, Grace Corbin, Ruth James, Edith Graham and Florence Matthews.

The glee club, under the direction of Mr. Frank Thomas, has made itself a most popular organization. The singing is characterized by admirable attention to rhythm and expression, and the quality of selections studied is always good.

REPORT OF THE DEAN OF WOMEN

MARY STEWART, A. B., Dean.

To the President of the University:

The following report in regard to the women of the University is respectfully submitted:

I. ENROLLMENT

For Second Semester of 1906-7	140
For First Semester of 1907-8	123

II. HOMES

Fifty-five of the young women have lived in the Woman's Hall during the present semester. This is ten in excess of the enrollment of last year. The large majority of the other women students are living in their own homes. Not more than half a dozen are boarding outside, and these are in private families.

III. SELF SUPPORT

A number of the young women are supporting themselves, entirely or in part. Some of these are doing housework either in the Woman's Hall or in private families. Several are doing clerical work for the University. There is ample opportunity for self assistance.

IV. ORGANIZATIONS

The Young Woman's Christian Association has seventy-eight members, of whom fifty-eight are new. The state secretary, Miss Lucy H. Pearson, visited the University for two weeks in October, and did excellent work in promoting general interest in the association. The weekly prayer meetings are now held in Literary Hall, since the parlors at the Woman's Hall have proved inadequate for the increasing attendance. A very successful holiday bazaar was given in November for the purpose of raising money to send delegates to the state convention at Bozeman, (Nov. 21-24). Ten delegates were sent. The organization is in a healthy and flourishing condition and is doing a good work in the school.

The Clarkia Literary society has a membership of forty-four (44). Their initiation, held in the Woman's Hall in September, was more ambitious than usual and was highly successful. The new members number twenty-six. They are doing good work, and give promise of a most profitable and pleasurable year.

The Delta Sigma sorority has a membership of seventeen. Six of them occupy the suite on the third floor, which they have made very artistic and attractive. This serves as a center for their social life, and as a meeting place for sorority affairs.

The Theta Phi sorority has a membership of fifteen, one of whom is also a member of the Faculty. They have the suite on the second floor, which they have made a very attractive meeting place for their members and friends. Six of them occupy this suite.

Both of these sororities are, as yet, only local, though we entertain good hope that they will soon receive recognition from national organizations. They are composed of strong, womanly girls, who are growing into a fuller recognition of their responsibilities as university women, and of their obligations to set high standards of scholarship and conduct.

V. CONDUCT

Indeed, the women of the University, as a whole, are daily recognizing more fully the dignity and responsibility of being college women. They are gentle and quiet in their manners, and earnest in their work. The students in the Woman's Hall are accorded a high degree of liberty which they use very sanely, and are thereby developing a more serious appreciation of personal accountability and a finer sense of honor. They refuse to tolerate habits or customs among their fellows that would lower the general reputation for gentle womanliness. There is a spirit of good fellowship and happiness among them, a ready responsiveness toward guidance, and a cheerful loyalty to the administration.

VI. WOMAN'S HALL

The Hall was thoroughly renovated during the summer vacation, and every part of the building is, at present, in perfect condition. The plumbing, lights, etc., are kept in repair by the watchful service of Mr. Kessler, the engineer. The Hall is a wholesome, comfortable and beautiful home for the girls, and they seem to appreciate it. It is, however, somewhat crowded, and there will not be sufficient room to accommodate a like increase in numbers another year.

The housekeeper, Mrs. Cronburg, is efficient in every respect. Great credit is due her for her conscientious efforts to promote the health and comfort of the household, and for her wise and loyal support of the administration.

DEPARTMENT OF PHYSICAL TRAINING

ALBION G. FINDLAY, A. B., Director of the Gymnasium.

To the President of the University:

Dear Sir:—I have the honor to submit my first annual report for the year ending November 30, 1907.

The plan of work in the Department of Physical Training this year has been to secure as much interest as possible in outdoor games and sports and to make the best possible use of the indoor gymnasium equipment.

The class room work in the gymnasium has consisted of dumbbell and mat exercises, elementary work on the vaulting bar, parallel bars, etc. Games with the medicine ball have been engaged in from time to time to relieve the routine of other work.

The number in classes for the second semester of last year beginning February, 1907, is taken from the record of Professor Schule, who was then in charge of this department of the University:

FOR THE SEMESTER BEGINNING FEBRUARY 6, 1907.

Preparatory Gymnasium	41
College Gymnasium	23
Basketball	18
Track Athletics	12
Total	94

FOR THE SEMESTER BEGINNING SEPTEMBER 11, 1907.

Preparatory Gymnasium	16
College Gymnasium	16
Football	35
Cross Country Run	7
Basketball	34
Total	108

DEPARTMENT OF BIOLOGY

MORTON J. ELROD, Ph. D., Professor.

MRS. HARRIET LEHMAN KUTCHIN, A. M., Assistant.

To the President of the University:

The Department of Biology during the past year has continued the work as outlined in previous reports and catalogues. The same progress may be reported that has been spoken of formerly. The number of students has taxed the laboratory facilities, and at present it is almost impossible to care for them.

The laboratory instruction in General Biology has since September been in charge of Mrs. Harriet Lehman Kutchin. Mrs. Kutchin has had most excellent preparation for this work. She is a graduate of Ripon College, took advanced study at Northwestern, and has held several fellowships. The last was the Alice Freeman Palmer fellowship at Wellesley; under the terms of this fellowship she studied at Harvard, at the Bermuda and Naples Zoological stations.

Her work with the students is very satisfactory, and it is indeed fortunate that her services could be secured.

Since the last report one bulletin has been prepared and is now in press, "Indian Writings at Flathead Lake." This will include 15 to 20 pages of printed matter, with a dozen illustrations.

The head of the department is secretary of the State Horticultural society, and as such prepared a volume of the Transactions of the Society, consisting of nearly 100 pages.

The department has aided materially in the general advancement of the University by supplying the necessary illustrations for advertising and for fair exhibitions. Assistance has been rendered at Farmer's Institutes and at the State Horticultural Society.

The enrollment is as follows:

SEMESTER BEGINNING FEBRUARY 6, 1907

General Biology	34
Zoology	3
Botany	3
Advanced Study	2
Photography	3
Total	45

SEMESTER BEGINNING SEPTEMBER 11, 1907

General Biology	44
Zoology	4
Botany	5
Photography	6
Preparatory	4
Total	63
Summer Session, Biological Station, 1908	10

UNIVERSITY BIOLOGICAL STATION

MORTON J. ELROD, M.A., Ph.D., Director.

To the President of the University:

The University of Montana Biological Station held its ninth annual session on the ground first selected, and in the building constructed nine years ago. The session began July 9, and extended to August 15. The following was the teaching force:

Oscar J. Craig, President, University of Montana, Lecturer.

Morton J. Elrod, Professor of Biology, University of Montana, General Zoology and Botany.

P. M. Silloway, Superintendent of Schools, Lewistown, Montana, Bird Study, The Forest.

Maurice Ricker, Principal, West Des Moines High School, Photography, Nature Study.

Mrs. Edith Ricker, Station Artist.

Principal Silloway has been with the Station almost from its beginning. He has been for several years preparing a work on the ornithology of the state, which will be completed before another report is made, and which will be recommended for publication. His careful and painstaking study of the birds in the vicinity of the Station has resulted in a better knowledge of the avifauna of this section than of any other portion of the state.

Principal Ricker has been at the Station before, and his work has been highly satisfactory. He has an excellent knowledge of service in handling machinery, and rendered great assistance to a number of people in getting their gasoline engines into proper working order. He removed the old engine, one of the first and old style engines, from the station launch, and installed a new one. This three-horse power engine sends the small launch

through the water at a much better speed than formerly, and makes it much more serviceable.

Mrs. Ricker's work as an artist has been specially valuable. At a former session she prepared a series of colored drawings of butterflies, from which was made a colored illustration. A number of these were not used. During the past season she prepared a series of colored pictures of native flowers, and was of great service in other ways.

The usual program was carried out. Several public lectures were given with the stereopticon. Excursions were made as in former years. Several of these had in view the selection of land for future use. A week was spent at Wild Horse Island, several days at Yellow Bay, and many places around the lake were visited by boat.

After the station work was closed some time was spent in looking over portions of the Reservation for the American Bison Society, seeking a suitable tract to recommend for a reserve for buffalo or bison, under national supervision. The Little Bitter Root country was visited, as also several in the Mission Valley. Earlier in the season the section near Ravalli was examined.

The following recommendation is made relative to the selection of one hundred sixty acres of land.

Land selected for University of Montana Biological Station on the Flathead Indian Reservation, in conformity with act of congress, and recommended to the State Board of Education for selection.

Frac. Township 24 North, Range No. 19 West of the Principal Meridian, Montana.

Lots 1, 2 and 3, in Section 4, 24.62, 20 and 9.62 acres, a total of 53.24 acres.

This tract is on the east side of the lake, and includes the point at Yellow Bay, with a portion of the bay itself.

Township No. 23 North, Range No. 20 West of the Principal Meridian, Montana. Lots 4 and 7 of Section 11, 14.30 and 37.18 acres, a total of 51.48 acres. This is on Bull Island, about seven miles from Polson. It is the largest island in this group. The selection takes only a portion of the island, which has a total of 116.57 acres.

Frac. Township No. 24 North, Range No. 21 West of the Principal Meridian, Montana.

Lot 1, Section 13, 36.12 acres. This is on the north side of Wild Horse Island, at the end of the little bay, where there is a perfect harbor for boats of any size.

Frac. Township No. 19 North, Range No. 19 West of the Principal Meridian, Montana.

Lot No. 1, 30.64 acres. This is at the west end of McDonald Lake in the Mission mountains, and has a shore line on the lake sufficient for boats, as also a good camping site or location for buildings.

These locations are made clearer by the township plats herewith presented, with the location properly indicated. Photographs of the different places have been prepared, and are herewith submitted.

The selections have been made with the idea in view of locations for the best opportunity of studying zoology, botany, geology, physiography, and biology in a wide range. The selection at McDonald Lake in the Mission mountains is at the base of McDonald and Teton mountains, forming as they do the banks of the southern and northern shores of this beautiful little lake. It is but a few steps from the camping site to the ridge leading up either mountain. McDonald rises to 10,000 feet, Teton to 9,500 feet. At the upper end of the lake is an unexplored forest; below are the glaciated hills, the broad valley, with its creeks, ponds and swamps, and in the lake itself are various forms of cold water life. This is an exceptionally good location for study of life problems, and will be valuable in affording a place, undisturbed, where students may have headquarters. A good wagon road leads up to the lake.

Yellow Bay is the best harbor, almost the only one, indeed, on the eastern shore of the lake. The shore extends for 30 miles from north to south, with but two bays where boats may find shelter. A creek comes down from the mountains, flowing into the lake at the end of the bay, furnishing an abundant supply of pure water. The bay is formed by a small projecting tongue of land, with a small promontory that has an elevation of perhaps 75 feet above the lake level. The top is flat, well wooded with young timber. The view takes in the entire lake, from end to end, and to the west across the widest part, almost 20 miles. On the east the mountains rise precipitously from the lake to an elevation of over 8,000 feet, with projecting cliffs, zones with different forms of vegetation, beautiful ravines, and presents attractive views and change of vegetation at different points. The land is for the most part adapted to orchard or garden, and is rich with the decaying vegetation of many years. The wagon road passes along the lake shore, giving access by wagon.

The tract at Wild Horse Island is a charming spot, at the end of a deeply cut neck of the island. The island includes 2100 acres, rises to an elevation of some 1200 feet above the lake, and has in former times been scoured over by the great field of ice that crossed the lake from north to south in glacial times. The rim of the island is well timbered, in places following the ravines, and extending even to the summit. Most of the island is barren of trees, but has rank growth of vegetation. Grass grows from knee high to waist high, with a profusion of wild flowers, forming quite an extended flora. The camping site is ideal. A canopy of tall and sturdy yellow pines form an abundance of shade. In a few minutes one may climb to the nearby rocky elevations where the grand panorama of the Mission mountains on the east and the Cabinets on the west, with the broad expanse of lake and numerous islands in the shimmering water, give an impression of Nature's grandeur that cannot be forgotten. A short boat ride and an hour's walk or ride takes one to the old lake outlet on the west, where the former river channel is seen as plainly as is the lake itself. And

as one views the old outlet and then faces the lake, the whole story is told by the first glance. The old lake bed rises several hundred feet, beautifully terraced, resembling an immense bowl, lined with green, with a little water in the bottom. From the camping site to the northwest it is but a half hour with a launch to the pictured rocks, where the old Indian writings, dating beyond the memory of any one now living, are plainly seen on the cliff at the angle of the lake, and the lake itself, with its varied and almost unknown life, is not without a great deal of interest to the student of Nature. From this point excursions to the main land are easy, and opportunities for extensive experiments are presented on every hand.

The Bull Island location was chosen because of its nearness to the southern end of the lake, and its suitability for a summer camp for students or others. It is passed by every boat going up or down the lake. It has a good harbor on the southern side, a nice sloping bank, wooded with trees of suitable size for shade and not thick enough to be dangerous on account of the wind. The island rises to an elevation of perhaps a hundred feet above the lake. There are said to be Indian writings on the cliffs on the north, but the writer has not visited them. The island is between six and seven miles from Polson at the foot of the lake, and is the largest one of a chain which almost cuts off the southern end of the lake from the main body.

This last selection is not at this present time so important. But the reservation will in a few years have a large population. Flathead lake is bound to be a great pleasure resort, with thousands coming to it from all quarters. When that time comes a summer session may be held on Bull Island, when students may congregate on an island where they will be free from disturbances, close to the main land, a typical spot for study and recreation combined. The selection is adapted to orchard or garden if desired.

Taking all things into consideration it is believed that the selections recommended are adapted to the work for which congress made the appropriation. They will be appreciated more 25 years from now when all the available sites for such use will be gone. When selected, the lands should be kept almost in their present condition, with the possible removal of underbrush and the building of necessary trails and paths on the locations that are to be immediately used.